



PORT OF  
TILBURY  
LONDON

PLANNING ACT 2008

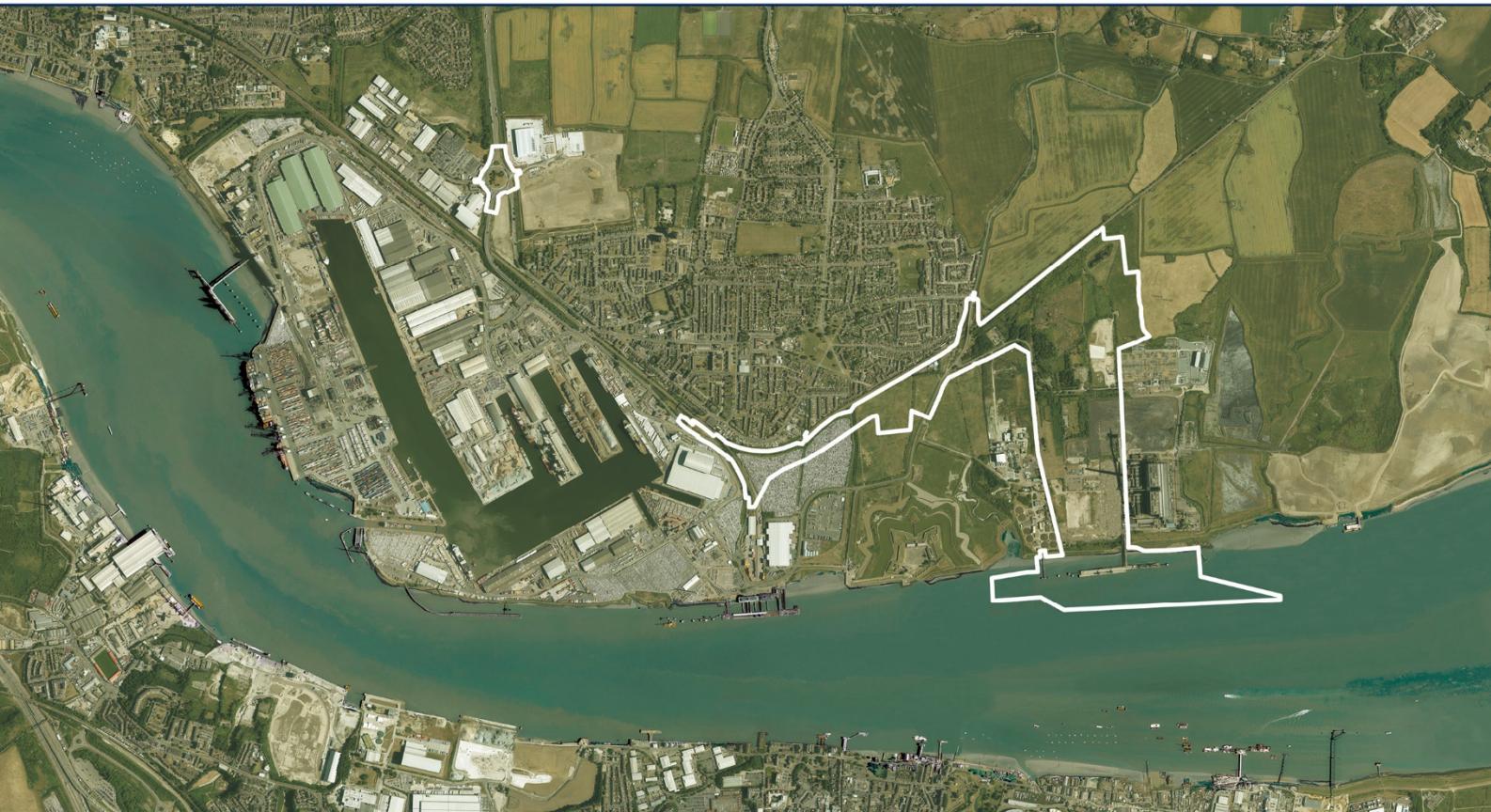
INFRASTRUCTURE PLANNING  
(APPLICATIONS: PRESCRIBED FORMS AND PROCEDURE) REGULATIONS 2009

PROPOSED PORT TERMINAL AT  
FORMER TILBURY POWER STATION

**TILBURY2**

INVERTEBRATE SURVEY OF TILBURY2 (SEPTEMBER 2017).  
REPORT BY M G TELFER

DOCUMENT REF: APPENDIX 10.L



**TILBURY2**

# **INVERTEBRATE SURVEY OF TILBURY2**



**MARK G. TELFER**

**29TH SEPTEMBER 2017  
VERSION 2: 11TH OCTOBER 2017**

**THIS REPORT WAS PRODUCED FOR BIOSCAN (UK) LTD**

Dr. Mark G. Telfer MA (CANTAB), MCIEEM  
10, Northall Road  
Eaton Bray  
DUNSTABLE  
LU6 2DQ  
[mark.g.telfer@btinternet.com](mailto:mark.g.telfer@btinternet.com)  
<http://markgtelfer.co.uk/>

This report should be quoted as:

Telfer, M.G. (2017). *Invertebrate survey of Tilbury2*. Report to Bioscan (UK) Ltd.

## Contents

<b>1</b>	<b>SUMMARY .....</b>	<b>44</b>
<b>2</b>	<b>INTRODUCTION.....</b>	<b>55</b>
2.1	SURVEY AREA SUBSITES.....	55
2.2	DEVELOPMENT PLANS .....	99
2.3	PREVIOUS INVERTEBRATE SURVEY WORK .....	99
2.4	SURVEY AIMS.....	99
<b>3</b>	<b>METHODS .....</b>	<b>1010</b>
3.1	FIELDWORK VISITS .....	1010
3.2	CONSTRAINTS .....	1212
3.3	SAMPLING INVERTEBRATES .....	1212
3.4	TARGET SPECIES .....	1313
3.5	IDENTIFICATION .....	1616
3.6	ANALYSIS .....	1616
3.6.1	<i>Data management</i> .....	1616
3.6.2	<i>Record verification</i> .....	1616
3.6.3	<i>Key species</i> .....	1717
3.6.4	<i>ISIS</i> .....	1818
3.6.5	<i>Pantheon</i> .....	1919
3.6.6	<i>Assessing the importance of the survey area</i> .....	1919
<b>4</b>	<b>RESULTS.....</b>	<b>2020</b>
4.1	2016 AND 2017 SURVEYS COMPARED .....	2020
4.2	TARGET SPECIES RESULTS .....	2020
4.3	RESULTS: THE WHOLE SURVEY AREA .....	2121
4.3.1	<i>Section 41 species</i> .....	2121
4.3.2	<i>Key Species analysis</i> .....	2222
4.3.3	<i>ISIS results</i> .....	3232
4.3.4	<i>Pantheon results</i> .....	3232
4.4	RESULTS: THE FIVE SUBSITES .....	3434
4.5	SECTION 41 SPECIES ACCOUNTS .....	3434
4.6	OTHER NOTEWORTHY SPECIES.....	3838
<b>5</b>	<b>ASSESSMENTS.....</b>	<b>3939</b>
5.1	SURVEY AREA ASSESSMENT.....	3939
5.2	SUBSITE ASSESSMENTS .....	4040
<b>6</b>	<b>ACKNOWLEDGEMENTS .....</b>	<b>4141</b>
<b>7</b>	<b>REFERENCES.....</b>	<b>4141</b>
<b>APPENDIX 1: BRITISH CONSERVATION STATUS CATEGORIES – DEFINITIONS.....</b>		<b>4444</b>
<b>APPENDIX 2: COMBINED LIST OF INVERTEBRATES RECORDED AT TILBURY2 IN 2016 BY COLIN PLANT ASSOCIATES AND IN 2017 BY MARK G. TELFER .....</b>		<b>4848</b>

## 1 Summary

- A general invertebrate survey was carried out of a site at Tilbury, Essex, covering the site of a former power station, and an Infrastructure Corridor extending to the west, the whole comprising the Tilbury2 project for which a Development Consent Order is being sought.
- The survey area was divided into five subsites: (i) the Lytag site, (ii) the former Tilbury Education and Environment Centre (TEEC) site, (iii) the Coastal Strip, (iv) The Rest of the main part of the survey area, and (v) the Infrastructure Corridor. The Lytag site and the TEEC site are coterminous with Local Wildlife Site designations of the same names.
- Colin Plant Associates carried out an invertebrate survey of this area in 2016. The current survey was commissioned to supplement and complement their work, and allow a comparison with an earlier survey by them in 2007 which encompassed all of the site except for the Infrastructure Corridor.
- Fieldwork was carried out by the author on fourteen dates between 21st April and 22nd September 2017.
- In combination, the 2016 and 2017 surveys recorded 1,397 species of invertebrate, covering a very wide range of taxonomic groups.
- Ten Section 41 species were found:
  - the planthopper *Ribautodelphax imitans* was found only on the Lytag site;
  - Sea Aster Bee *Colletes halophilus* is strongly associated with the Coastal Strip;
  - Five-banded Weevil-wasp *Cerceris quinquefasciata*, Brown-banded Carder-bee *Bombus humilis*, Shrill Carder-bee *Bombus sylvarum* and the picture-winged fly *Dorycera graminum* were all found more widely within the survey area;
  - Wall butterfly, Small Heath butterfly, Garden Tiger moth and Cinnabar moth are Section 41 species for which conservation action is focused on further research rather than protection of individual sites.
- Targeted searches were carried out, unsuccessfully, for a further five Section 41 species which had been recorded from in or near the survey area in 2007:
  - Saltmarsh Shortspur beetle *Anisodactylus poecilosoides* has not previously been recorded from the survey area and is probably absent, though it occurs in an adjacent area;
  - there is highly suitable habitat for Hornet Robberfly *Asilus crabroniformis* though it is either absent from the survey area or only occurs sporadically, or at very low density;
  - Red-shanked Carder-bee *Bombus ruderarius* was not recorded but may still be present;
  - Black-headed Mason-wasp *Odynerus melanocephalus* was not recorded but may be present;
  - Four-banded Weevil-wasp *Cerceris quadricincta* is unlikely to occur in the survey area.

- One species new to Britain was discovered. It is a terrestrial snail of the genus *Monacha* but the species name remains to be determined. It is certainly a non-native species and thus not a material consideration for the proposed development.
- 159 species (11.4% of the total species list of 1,397) are here regarded as “Key Species” (i.e., with rare, scarce, threatened or near threatened conservation status); a very high percentage.
- Within the 159 Key Species, there were 31 Rare Key Species (i.e., with rare or threatened conservation status) comprising 2.2% of the total species list; also a very high percentage.
- The Tilbury2 survey area is of high conservation importance for invertebrates in a national context.
- The Coastal Strip is the most important subsite for invertebrates.
- The Lytag and TEEC sites are the least important subsites; The Rest of the main part of the survey area is now more important.
- The Infrastructure Corridor is of middle-ranking importance compared to the other subsites but still probably of national importance in its own right.

## 2 Introduction

This report describes an invertebrate survey of an area at Tilbury, within the borough of Thurrock, Essex. The main part of the survey area is a former power station site including habitats developing on Pulverised Fuel Ash (PFA) and Lytag aggregate (Figure 1). The survey area also includes an Infrastructure Corridor, extending westwards from the power station site across grazing marsh fields and other habitats (Figure 2). The whole survey area will be referred to in this report as Tilbury2.

An invertebrate survey was commissioned on 30th March 2017, involving eleven survey visits. An extension to the survey work was agreed on 11th July with the addition of two further survey visits.

### 2.1 SURVEY AREA SUBSITES

The survey area was divided into five subsites: (i) the Lytag site, (ii) the former Tilbury Education and Environment Centre (TEEC) site, (iii) the Coastal Strip, (iv) The Rest of the main part of the survey area, and (v) the Infrastructure Corridor (Figure 3).

## Invertebrate survey of Tilbury2

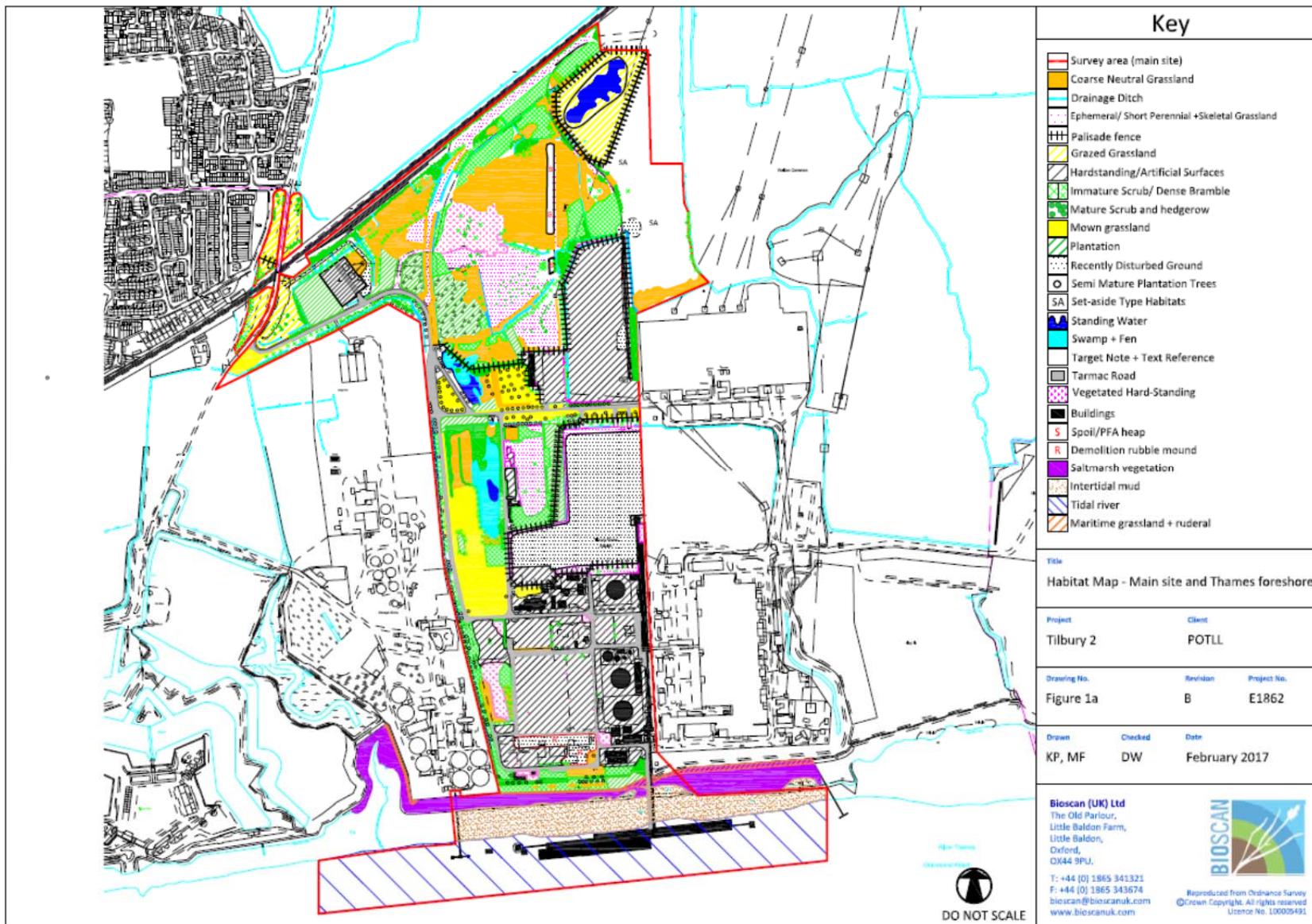


Figure 1: The main part of the Tilbury2 survey area outlined in red.

## Invertebrate survey of Tilbury2



Figure 2: The Infrastructure Corridor part of Tilbury2, outlined in red.

Invertebrate survey of Tilbury2

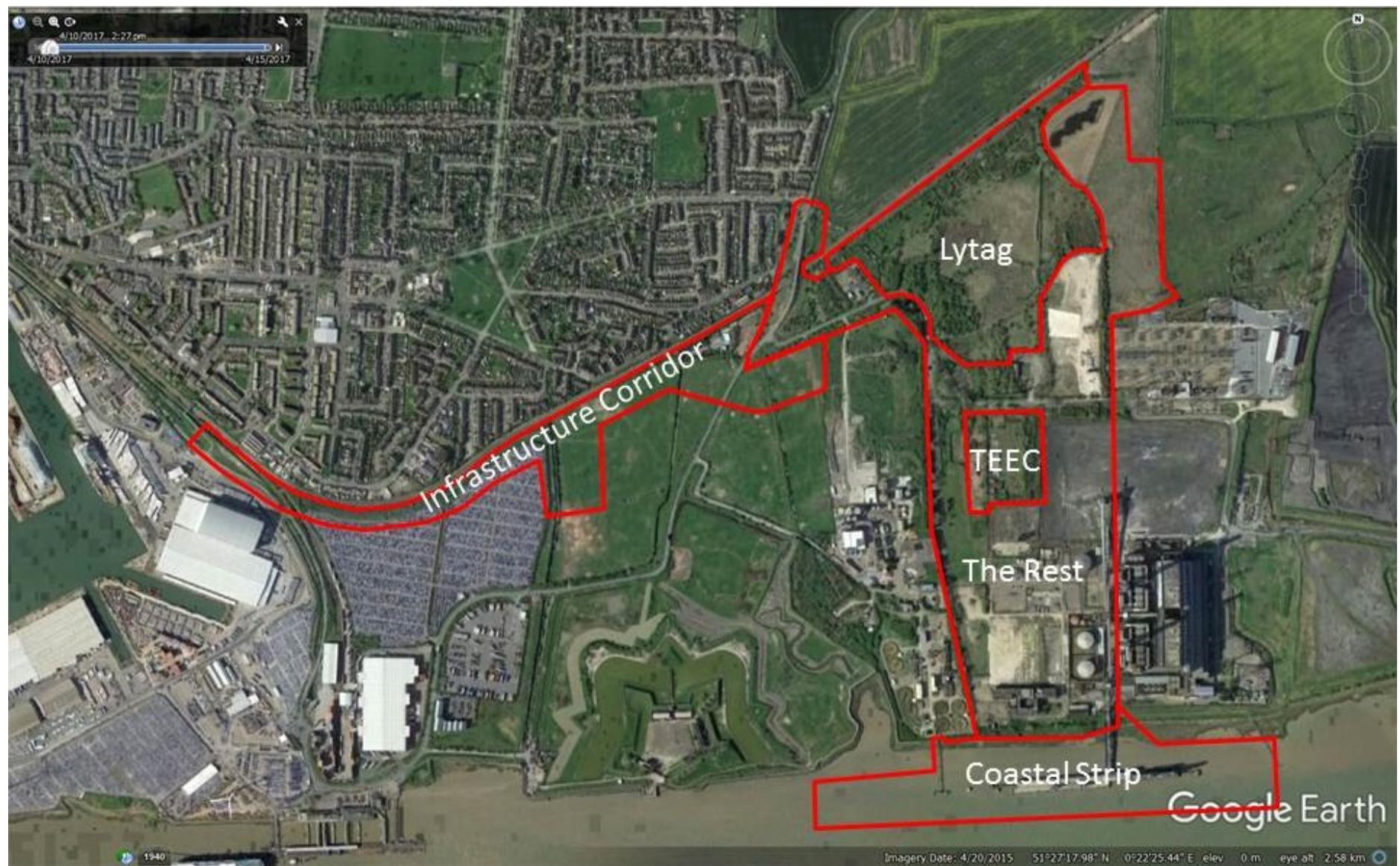


Figure 3: The Tilbury2 survey area, indicating the five subsites referred to in this report.

## 2.2 DEVELOPMENT PLANS

The survey area is subject to proposals by the Port of Tilbury to develop a new port terminal. The main part of the site will be largely used for the handling and storage of trailers, containers, construction materials and bulk goods, with rail and road access through the Infrastructure Corridor.

## 2.3 PREVIOUS INVERTEBRATE SURVEY WORK

In 2007, Colin Plant Associates were commissioned by Bioscan on behalf of RWE npower (the then owners) to undertake an invertebrate survey of a larger, overlapping survey area at Tilbury Power Station (Colin Plant Associates, 2008). 1,445 species of invertebrate were recorded and the report concluded that “It is unequivocally clear that Tilbury Power Station supports an invertebrate assemblage that is outstandingly significant at a national (British Isles) level”.

In 2016, Colin Plant Associates were again commissioned by Bioscan, this time on behalf of the Port of Tilbury London Ltd (POTLL), to survey an area substantially the same as the survey area shown in Figure 1 and Figure 2. Eight visits were carried out for the 2016 survey and 789 invertebrate species were reported (Colin Plant Associates, 2016).

## 2.4 SURVEY AIMS

Additional invertebrate survey work was required in 2017 to supplement and complement the work carried out by Colin Plant Associates (2016).

The 2017 survey was specifically required to assess the importance for invertebrates of the survey area as a whole, following Natural England guidelines (Anon., 2005); and to assess the importance for invertebrates of the following compartments:

- the Lytag brownfield site,
- the area around the former Tilbury Energy and Environment Centre (TEEC),
- the saltmarsh habitats on the Thames foreshore,
- the rest of the main site, and
- the Infrastructure Corridor.

Targeted survey effort was required for the following Section 41 species (species listed in Section 41 of the Natural Environment and Rural Communities Act 2006 which lists species ‘of principal importance for the purpose of conserving biodiversity’) which were recorded in the 2007 survey but not in 2016:

- Saltmarsh Shortspur beetle *Anisodactylus poeciloides*,
- Hornet Robberfly *Asilus crabroniformis*,
- Red-shanked Carder-bee *Bombus ruderarius*,
- Black-headed Mason-wasp *Odynerus melanocephalus*,
- Four-banded Weevil-wasp *Cerceris quadricincta*, and
- Sea Aster Bee *Colletes halophilus*.

### 3 Methods

#### 3.1 FIELDWORK VISITS

Invertebrate sampling was carried out on fourteen dates between 21st April and 22nd September 2017 (Table 1).

**Table 1:** Survey visits undertaken, with fieldwork notes and weather notes.

Visit number	Date	Fieldwork notes	Weather
1	21/04/2017	Inductions. Reconnaissance and sampling of the coastal strip. Reconnaissance and sampling of the Hyundai compound north of Substation Road. Reconnaissance of the TEEC area and much of the Lytag area and other areas north of Substation Road.	Overcast (8/8), cool (max. 15 °C forecast), Gentle Breeze F3 from NW, dry.
2	03/05/2017	Reconnaissance and sampling in all parts of the Infrastructure Corridor.	Overcast (8/8) and dull, cool (c. 11 °C forecast), dry at first, raining from 14.20 but it was possible to carry out productive ground-searching and horse dung sampling.
3	16/05/2017	Further sampling in parts of the Infrastructure Corridor and operating yellow pan traps. Sampling in TEEC area and other parts of the main site north of Substation Road.	Mostly cloudy (6/8), warm (max. 22 °C forecast) with a Moderate to Fresh Breeze (F4-5), dry.
4	30/05/2017	Further sampling in parts of the Infrastructure Corridor. Sampling in the Lytag site, including operating yellow pan traps. Reconnaissance and sampling of areas south of Substation Road.	Overcast (8/8), max. 20 °C forecast, Light to Gentle Breeze (F2-3), dry after recent rain.
5	07/06/2017	Sampling in several parts of the Infrastructure Corridor and in the Coastal Strip.	Mostly cloudy (6/8), max. 20 °C forecast, Fresh to Strong Breeze (F5-6), dry.
6	10/06/2017	Dung sampling on grazed parts of the Infrastructure Corridor.	Partly cloudy but warm (23 °C max.) with a Moderate Breeze (F4), dry.
7	16/06/2017	Operating yellow pan traps in the Hyundai compound north of Substation Road. Thereafter additional reconnaissance of ground not yet visited within the main part of the survey area. Setting pitfalls.	A hot, sunny (2/8 cloud cover) day with a Fresh Breeze from the west, dry.

Invertebrate survey of Tilbury2

Visit number	Date	Fieldwork notes	Weather
8	29/06/2017	Servicing pitfalls (all vandalised). Setting further pitfalls in the Lytag area and in the grazing marsh of the Infrastructure Corridor. Sampling within the main part of the survey area, north and south of Substation Road.	Cloudy (7/8) but reasonably bright, forecast max. of 16 °C, quite humid, dry.
9	04/08/2017	Using spells of sunnier weather to survey for Hornet Robberfly <i>Asilus crabroniformis</i> in the Infrastructure Corridor, as well as targeting bees, wasps, butterflies, etc. Servicing pitfalls (mostly vandalised). Sampling within the Hyundai compound north of Substation Road.	Mostly cloudy (6/8), max. 23 °C forecast, Moderate Breeze (F4), dry.
10	17/08/2017	Set yellow pan traps. Pond-netting in grazing marsh ditches, ditches in the pasture fields adjacent to the bridge over the railway, the Water Vole mitigation pond in the NE of the survey area, the ditch at the edge of the Hyundai compound north of Substation Road, and the TEEC pond.	Overcast (8/8) and dull initially, becoming sunny (2/8) later, max. 23 °C forecast, dry.
11	18/08/2017	Survey for Hornet Robberfly <i>Asilus crabroniformis</i> , as well as bees and wasps, in the Infrastructure Corridor and Lytag site. Servicing surviving pitfalls. Retrieve yellow pan traps.	Partly cloudy (3/8), max. 23 °C forecast, Moderate Breeze (F4) from the SW, drying after overnight rain. Weather deteriorating rapidly in the early afternoon, with fieldwork curtailed by heavy rain and lightning from 15.15.
12	07/09/2017	Aerial netting in the Lytag area, TEEC area and other parts of the main site. Servicing surviving pitfalls.	Light cloud, max. 19 °C forecast, Gentle Breeze (F3) from the WSW, dry in the morning, with light showers in the early afternoon.
13	14/09/2017	Sampling the Lytag area, and the abandoned arable area to the East. Sampling the TEEC area in the early afternoon then the Coastal Strip. Lifted the remaining pitfalls.	Partly cloudy, max. 16 °C forecast, Moderate Breeze (F4) from the W. Dry in the morning but raining in the afternoon, becoming sunny again by early evening.
14	22/09/2017	Sampling remaining under-sampled areas, including the footpath between Hume Avenue and Fort Road, the TEEC area, the TEEC pond and the grazing marsh fields within the Infrastructure Corridor.	Cloudless and sunny, with temperatures exceeding the forecast maximum of 18 °C. Light Air (F1). Dry.

### 3.2 CONSTRAINTS

Invertebrate activity is significantly affected by the weather, which can seriously diminish the effectiveness of some sampling techniques. The weather conditions on each survey visit are indicated in Table 1.

Fieldwork was curtailed by a thunderstorm on the afternoon of 18th August but the lost fieldwork time was compensated for on later visits. Otherwise, productive fieldwork was possible throughout all the survey visits, by using appropriate survey techniques to suit the weather conditions.

Hot, sunny conditions, with little or no wind, were experienced very infrequently during this survey and this may have hampered recording of some of the more heat-demanding invertebrates (e.g., bees, wasps and larger flies).

### 3.3 SAMPLING INVERTEBRATES

All fieldwork was carried out by the author. A range of techniques was used, as appropriate, to sample for invertebrates (Table 2). Detailed guidance on most of these sampling techniques is provided by Drake *et al.* (2007).

**Table 2:** Techniques employed on this survey to record invertebrates, and their target groups and target habitats.

Technique	Target groups	Target habitats
Ground-searching, turning over logs, stones, etc.	A wide range of ground-living invertebrates, including beetles, bugs, ants (Hymenoptera: Formicidae), woodlice (Isopoda), etc.	Grassland and other open habitats, wetland marginal habitats, saltmarsh.
Suction sampling	As above but particularly effective for finding some of the smaller, well-hidden or well-disguised species living on the ground and in the sward.	As above.
Sieving.	Handfuls of material are sieved over a tray to reveal their inhabitants. A good technique for a very wide range of invertebrates.	As above, with particular merits in dense, litter-rich vegetation or saltmarsh with accumulations of tidal debris.
Pitfall trapping	Pitfall trapping was used to a very limited extent, to supplement active collecting by ground-searching, suction sampling and sieving, particularly for spiders.	Grassland swards on the Lytag site. Ruderal vegetation on abandoned arable land. Grazing marsh fields.
Sweep-netting with a stout canvas net.	Beetles, bugs and many other invertebrates.	All habitats.

Technique	Target groups	Target habitats
Aerial netting with a lightweight ‘butterfly net’.	Flies, bees, wasps and other flying insects.	Sheltered environments adjacent to trees, scrub, hedges, waterbodies and watercourses, and in the saltmarsh.
Yellow pan trapping	Bees, wasps and flies that are attracted to yellow.	Areas with foraging or nesting resources for the target invertebrates, and in sheltered and sunny microsites.
Beating.	Beetles, bugs and many other invertebrates on the branches, flowers and foliage of shrubs and trees.	Hedges, scrub and trees.
Pond-netting	Aquatic invertebrates, including beetles, bugs and snails.	Waterbodies and watercourses.
Dung sampling	Beetles, both dung-specialists and a wide range of other dung visitors.	Grazing marsh and other pasture.
Direct observation.	Bees, wasps, flies, butterflies, moths, etc.	All habitats, paying particular attention to nectar and pollen sources.

A limited amount of more general sampling was carried out on an opportunistic basis, such as examining the walls of the Gatehouse for moths attracted to light during the preceding night, sampling ripe fungal fruiting bodies when they were encountered, and sampling invertebrates attracted to the polarised light reflections from the author’s vehicle.

### 3.4 TARGET SPECIES

#### Saltmarsh Shortspur beetle *Anisodactylus poeciloides*

A medium-sized metallic ground beetle (Figure 4). Despite the ‘saltmarsh’ of the vernacular name, this species occurs only rarely in saltmarshes subject to direct tidal influence. It is a specialist of the margins of saline and brackish lagoons which are more remote from the tidal cycle, or receive seawater by seepage through sea defences. Recent years have seen substantial improvements in understanding of this species’ habitat requirements and a surge in records, such that it is now assigned to the ‘Least Concern’ conservation status category (Telfer, 2016). Colin Plant Associates (2008) recorded *A. poeciloides* from saline habitat over a kilometre east of the 2016-17 survey area.



Figure 4: Saltmarsh Shortspur beetle *Anisodactylus poeciloides*.

Survey for *A. poeciloides* was by ground-searching and suction sampling in the Coastal Strip. Ground-searching was also carried out along the brackish ditch and around some small, ephemeral brackish puddles in the Hyundai compound north of Substation Road.

#### Hornet Robberfly *Asilus crabroniformis*

A large black and orange fly which appears to mimic the Hornet *Vespa crabro*. It has a southerly distribution in England and Wales, where it is strongly associated with pastures grazed by cows or horses. The association with dung appears to be threefold: adults perch on dung, watching for prey and making hunting forays; dung-beetles form a portion of their diet though they also prey on a range of other, mostly large insects including grasshoppers, wasps and other large flies; and females are thought to lay eggs in dung with larval development presumably then taking place in the dung or in the soil adjacent. Though declines have been reported for this species, it has been recorded from 102 British hectads since 1990 and has been assessed as of 'Least Concern' (Drake, 2017). Hornet Robberfly was not recorded by the 2007 or 2016 surveys but both surveys reported the presence of suitable habitat, with the knowledge that Hornet Robberfly occurs in similar grazed habitat nearby. The survey season for adults is from mid-July to mid-September.

Survey for this large and conspicuous insect was by walking through grazing marsh and pasture fields, favouring sunnier and more sheltered areas, and scanning for Hornet Robberflies in flight or perched on dung or other prominent features. Targeted searches were carried out on 4th and 18th August in suitable conditions, and vigilance for this species was maintained at all other times.

### **Red-shanked Carder-bee *Bombus ruderarius***

The Red-shanked Carder-bee has declined severely in recent decades. It was formerly widespread in England, especially the southeast, more local in Wales, and also found on some islands of the Inner Hebrides, with most records before 1970 (Edwards and Telfer, 2001). It frequents extensive areas of unimproved grassland with an abundance of flowers, especially Fabaceae and Lamiaceae. It is closely associated with tall grasslands which are only cut or grazed intermittently. There also seems to be some connection with areas of tussocky grass and scrub; perhaps required as nesting habitat. Queens emerge in April, the colonies lasting to September (Edwards and Telfer, 2001).

Targeted survey was carried out on 4th and 18th August by visiting sheltered, sunny spots and observing flowers. Yellow pan traps were set in suitable spots on several occasions when there were at least some sunny intervals. Vigilance for bumblebees was maintained throughout the fieldwork, giving close scrutiny to any bumblebees with red tails, and checking less well-marked males of the similar Red-tailed Bumblebee *Bombus lapidarius* by dissection.

### **Black-headed Mason-wasp *Odynerus melanocephalus***

*Odynerus melanocephalus* was formerly more widespread in southern England, but records since 1970 are mostly restricted to the coasts of Dorset, the Isle of Wight and the East Thames Corridor (Edwards, 1997). Colin Plant Associates (2008) recorded this species from the ash fields, east of the 2016-17 survey area. The wasp is particularly associated with open habitats (grasslands, heathlands, brownfield sites) on light, clayish soils. Nest burrows, with the protruding chimney characteristic of *Odynerus* species, are dug in level, exposed soil. Autecological work by Steven Falk has shown that the wasp collects the larvae of the weevil *Hypera postica* (perhaps not exclusively) which feeds on Black Medick *Medicago lupulina*. The wasp may also be associated with Spotted Medick *Medicago arabica*. Large sheltered patches of medick are favoured. The survey season for adults is from mid-May to mid-July.

Six visits were made within the survey season and yellow pan traps were set in suitable spots on several occasions when there were at least some sunny intervals.

### **Four-banded Weevil-wasp *Cerceris quadricincta***

A rare wasp of a few sites in Essex and Kent (Edwards, 1997). It excavates nest burrows in light, sandy soils and provisions the nest cells with weevils. A requirement for dry, well-insolated nest sites is apparent but this alone does not explain why the wasp has such a restricted British range. In Essex, there are records from the Colchester area, and the species was discovered at Tilbury by Colin Plant Associates (2008) from the ash fields, east of the 2016-17 survey area. The survey season for adults is from early July to mid-August.

Two visits were made within the survey season and yellow pan traps were set in suitable spots when there were at least some sunny intervals.

### **Sea Aster Bee *Colletes halophilus***

A coastal species with a range centred on the Thames estuary, extending to Hampshire on the south coast and northwards to Spurn on the east coast (Edwards, 1997). Females mainly collect pollen from Sea Aster *Aster tripolium*. Nest burrows are made in bare sandy soil, often in large aggregations, in south-facing, sunny situations. Some large populations are

associated with silt lagoons and PFA substrates. The species may be seen from late July to early October, with numbers peaking from mid-August to mid-September.

The 14th September offered an opportunity to visit the Coastal Strip during a brief sunny spell. Survey was by direct observation, stalking bees foraging on Sea Aster flowers.

### **3.5 IDENTIFICATION**

Where practical, invertebrates were identified in the field but wherever the slightest doubt existed, one or more specimens were collected, or photographs taken, for more detailed scrutiny.

Many of the bee and wasp (aculeate Hymenoptera) specimens and most of the fly (Diptera) specimens were sent to David Gibbs for identification. Most of the spider specimens were sent to Peter Harvey for identification. All other specimens were identified by the author. To achieve rigorously accurate identifications, specimens were identified using the identifiers' own libraries and entomological reference collections. Selected specimens have been retained in the identifiers' personal collections as vouchers.

### **3.6 ANALYSIS**

#### **3.6.1 Data management**

Data for the 2016 survey was taken from Appendix 1 of Colin Plant Associates (2016). This tabulates all species and aggregates recorded during the 2016 survey and mostly indicates presences for these taxa in four subsites (Lytag, Access, TEEC and The Rest). Records for eight species were not localised to these four subsites but can be taken to have been recorded somewhere within the survey area. The Coastal Strip was not visited for the 2016 survey as the development project did not include it at that time.

Appendix 1 of Colin Plant Associates (2016) tabulates 793 species or aggregates. The aggregates '*Pisidium* spp.' and 'Chironomidae unidentified larval stages' are too broad to be of ecological value and will not be considered further. Three species (*Romualdius angustisetulus*, *Rhipidia maculata* and *Pseudomalus auratus*) are duplicated in the table, being listed under two synonymous names. The 2016 report thus provided a corrected list of 788 species or aggregates.

Presence records from Appendix 1 were imported into the author's MapMate database. About 70 species or aggregates failed to match to any entry in the MapMate species dictionary. The majority were minor discrepancies of style or spelling and their resolution was uncontentious. "*Stenus propinquus*" of Colin Plant Associates (2016) was assumed to relate to *Sunius propinquus*. Where rather ambiguous names are used in Colin Plant Associates (2016) without clarification, I have assumed that names are used in the narrow sense, thus *Lasius niger* *sensu stricto*, *Chrysoperla carnea* *sensu stricto* and *Platycheirus scutatus* *sensu stricto*, though I have assumed *Bombus lucorum* *sensu lato*.

#### **3.6.2 Record verification**

No attempt was made to thoroughly verify all the species recorded by Colin Plant Associates (2016) but three species merit discussion here.

The beetle *Corticaria longicornis* was recorded by Colin Plant Associates (2016) from the Surface Access Corridor, the former TEEC area and The Rest. *C. longicornis* is a Scandinavian

and Central European species, known in Britain only from woodlands in the Scottish Highlands where it appears to specialise on fallen cones of Norway Spruce (Lyszkowski *et al.*, 1992). The Tilbury records are extraordinary and their inclusion in the Colin Plant Associates (2016) report without remark is strongly suggestive that they are erroneous. These records have been deleted.

The bark-beetle *Lymantor coryli* was recorded by Colin Plant Associates (2016) from the Lytag site and The Rest. It has usually been recorded tunnelling in the bark of Hazel or Hornbeam but there are also records from oak, pear and Buckthorn (Hyman and Parsons, 1992). Schedl (1981), writing about the species in central Europe, listed the following host plants: Hazel, Field Maple, Sycamore, Hornbeam, Beech, Walnut, Apple, cherry, oak, Buckthorn, Alder Buckthorn, willow and elm, and highlighted Hazel and Buckthorn as the main hosts. When Hyman and Parsons (1992) gave it Endangered status, it had been recorded from South Hampshire, West Kent, Surrey, North Essex, East Norfolk, Herefordshire and Worcestershire but with no British records since 1944. It was rediscovered at Charing, East Kent in 2001 (Heal, 2003) and discovered in Warwickshire in 2009 (Lane, 2010), Suffolk in 2015 (Lee, 2016) and Northamptonshire in 2015 (pers. obs.). Records from the Tilbury survey area would be surprising but not completely implausible, but their inclusion in Appendix 1 without any mention in the text nor any recognition that this is an Endangered (RDB1) species is suggestive of an error. These records have been disregarded, pending confirmation or otherwise.

The spider-hunting wasp *Arachnospila rufa* is known in Britain only from two Dorset sites where it was recorded in 1934 and 1938. It is Endangered, believed Extinct (RDB1+) (Falk, 1991a), so the record from the Lytag site in Colin Plant Associates (2016) would be of considerable interest and importance. However, *A. rufa* is only listed in Appendix 1, without any mention in the text nor any recognition of its conservation status, which is strongly suggestive of an erroneous record. This record has been deleted.

After making these deletions, Colin Plant Associates (2016) provided a list of 785 species or aggregates.

### 3.6.3 Key species

To assess the importance of a site for invertebrate conservation, the number and percentage of rare or scarce species found may be calculated. Sites of greater importance support higher percentages of rare or scarce species, and this percentage is a useful starting point for assessing the overall importance of a site, in comparison to other sites surveyed using similar techniques.

A standard definition of “rare or scarce” is essential to allow a fair comparison to be made between sites. For the analyses in this report, species were only included which have been assigned an official rare or scarce conservation status as defined in the box below, and all such species are here called “Key Species”.

#### Conservation status categories of invertebrates

A system of conservation statuses has been in use since the British Red Data Book for insects (Shirt, 1987), amended and supplemented by a series of JNCC Nature Conservation reviews. By this system, the rarest and most threatened British species are given one of the Red Data Book (RDB) statuses. Species which do not qualify as RDB but are nonetheless uncommon are given one of the Nationally Scarce statuses.

The status categories and criteria of this first version are defined in Appendix 1.1.

A second version of British conservation statuses published in the Species Status series from Natural England and Natural Resources Wales is now gradually replacing the first version. For butterflies, dragonflies, water beetles and several other groups, the most up-to-date British conservation statuses are based on the International Union for Conservation of Nature (IUCN) Red List categories and criteria (IUCN, 2001). This system places less emphasis on rarity and more on factors which suggest a risk of extinction (such as severe declines in range or population). The status categories and criteria of this second version are defined in Appendix 1.2.

A third version of British conservation statuses operates in parallel with the second and is a very simplified version of the first, having just two categories: Nationally Rare or Nationally Scarce. This version is defined in Appendix 1.3.

**Key Species** are here defined as Red Data Book and Nationally Scarce species from version 1, Threatened, Near Threatened and Data Deficient species from version 2, and Nationally Rare or Nationally Scarce species from version 3.

The Key Species may be further divided into **Rare Key Species** (here defined as Red Data Book species from version 1, Threatened and Data Deficient species from version 2, and Nationally Rare species from version 3) and **Scarce Key Species** (the remainder).

### 3.6.4 ISIS

A test version of Natural England's ISIS application was used to assess the invertebrate assemblages (Broad Assemblage Types (BATs)) present in the survey area.

Within ISIS, species have been allocated to one of six rarity scores (0, 1, 2, 4, 8, 16), with the commonest species scoring 0 and the rarest scoring 16.

For each BAT, ISIS calculates a 'BAT Rarity Score', defined by Drake *et al.* (2007) as follows:

The BAT Rarity Score is the average of all the individual species rarity scores in the assemblage. The rarity scores of individual species are often derived from their designated conservation status, but in some groups they have been taken from an analysis of the number of hectads<sup>1</sup> the species occupies, according to data held in the appropriate national recording scheme.

For example, if a survey recorded 46 species which have been assigned to a particular BAT, and the sum of their 46 species rarity scores was 106, the average of all the individual species rarity scores would be 2.30 (= 106/46) and the BAT Rarity Score would be 230, derived by multiplying that average by 100.

Drake *et al.* (2007) specifies default thresholds for assessing whether BATs are in favourable condition, this information being aimed at the Common Standards Monitoring of invertebrate features on SSSIs. In the 2010 version of the ISIS spreadsheet application (which I believe to be the latest version in circulation), a revised set of thresholds are used and described as "threshold scores whereby assemblages qualify as nationally important / in favourable condition".

<sup>1</sup> A 'hectad' is a 10 × 10 km square of the British national grid.

### 3.6.5 Pantheon

The ISIS system has recently been superseded by Pantheon, available online as a beta version.

Pantheon is an analytical tool developed by Natural England and the Centre for Ecology & Hydrology to assist invertebrate nature conservation in England. Users import lists of invertebrates into Pantheon, which can then be used to analyse the species, attaching associated habitats and resources, conservation statuses and other data against them.

Pantheon calculates a Species Quality Index (SQI), presumably by the same method as ISIS Rarity Scores. It does not currently specify any thresholds for assessing the importance of a site based on SQI but does indicate whether Specific Assemblage Types (SATs) are present in Favourable or Unfavourable condition.

### 3.6.6 Assessing the importance of the survey area

Natural England's pamphlet *Organising surveys to determine site quality for invertebrates: a framework guide for ecologists* (Anon., 2005) advises that "A survey should classify a site as one of the following:

- 1 Little/ no importance,
- 2 Local/ county importance,
- 3 Regional importance,
- 4 National importance,
- 5 European importance".

## 4 Results

### 4.1 2016 AND 2017 SURVEYS COMPARED

785 species were recorded by the 2016 survey over 8 visits. 1003 species were recorded by the 2017 survey over 14 visits. 391 species were recorded by both surveys. Both surveys covered a broad range of sampling techniques and identified invertebrates from a broad range of taxonomic groups. The 2016 survey provided more thorough coverage of bees and wasps (aculeate Hymenoptera) while survey for beetles (Coleoptera) was given greater emphasis in 2017.

### 4.2 TARGET SPECIES RESULTS

#### **Saltmarsh Shortspur beetle *Anisodactylus poeciloides***

The coastal strip supports habitats of low potential for *A. poeciloides* and none were found. The Hyundai compound north of Substation Road supports habitat of low potential for *A. poeciloides* and none were found. *A. poeciloides* has not previously been recorded from the survey area and is probably absent. Outside of the survey area but nearby, Bill Meroy Creek, a saline lagoon within grazing marsh north-east of the Tilbury Fort, was judged to be of high potential for *A. poeciloides*, and the beetle was readily found, in numbers, by ground-searching.

#### **Hornet Robberfly *Asilus crabroniformis***

No Hornet Robberflies were seen by this survey in 2017. The habitat appears highly suitable and there is certainly a suitable abundance and diversity of dung-beetle prey associated with the horse dung. Nevertheless, the absence of sightings during the 2017 fieldwork suggests that Hornet Robberfly is either absent from the survey area or only occurs sporadically, or at very low density.

#### **Red-shanked Carder-bee *Bombus ruderarius***

Red-shanked Carder-bee was not recorded in 2017 though the survey area appears to be suitable for this species. It may still be present.

#### **Black-headed Mason-wasp *Odynerus melanocephalus***

The area judged to be of highest potential for *O. melanocephalus* was in the southernmost part of the former power station site, where there was extensive cover of Black Medick and a population of the weevil *Hypera postica*. However, this area was regularly strimmed during the survey which severely reduced its suitability for the Mason-wasp.

*O. melanocephalus* has not been previously recorded from the survey area and was not recorded in 2017 though some potentially suitable habitat does occur within the survey area. It may be present.

#### **Four-banded Weevil-wasp *Cerceris quadricincta***

*C. quadricincta* was not recorded in 2017 and has not been previously recorded from the survey area and seems likely to be restricted to the ash fields.

### **Sea Aster Bee *Colletes halophilus***

Two *C. halophilus* were seen (one of which was collected for confirmation) in the Coastal Strip during a targeted search on 14th September. One was also recorded from the southernmost part of the former power station site by aerial netting on 7th September. The Coastal Strip has extensive stands of Sea Aster which were also providing forage for tens of Brown-banded Carder-bees *Bombus humilis*.

### **4.3 RESULTS: THE WHOLE SURVEY AREA**

Combining the results of the 2016 and 2017 surveys, yields a list of 1,397 species of invertebrate (Appendix 2), including representatives of the following groups: flatworms, waterlice, woodlice, amphipods, spiders, pseudoscorpions, harvestmen, centipedes, millipedes, springtails, two-tailed bristletails, mayflies, dragonflies, earwigs, bush-crickets, groundhoppers, grasshoppers, barkflies, psyllids, aphids, froghoppers, leafhoppers, planthoppers, bugs, beetles, sawflies, ants, bees, wasps, lacewings, alderflies, flies, caddisflies, moths, butterflies, slugs, snails and leeches.

#### **4.3.1 Section 41 species**

Ten Section 41 insect species (species listed in Section 41 of the Natural Environment and Rural Communities Act 2006 which lists species ‘of principal importance for the purpose of conserving biodiversity’) were found by the combined 2016-17 surveys (Table 3).

**Table 3:** The Section 41 species of insect recorded by the combined 2016-17 surveys. The table is ordered taxonomically. Also indicated is the presence of each species within the five subsites of the survey area.

Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lytag	TEEC	The Rest	Coastal	Corridor
Hemiptera: Auchenorrhyncha	Delphacidae	<i>Ribautodelphax imitans</i>	a planthopper	RDBK, S41	✓				
Hymenoptera: Aculeata	Crabronidae	<i>Cerceris quinquefasciata</i>	Five-banded Weevil-wasp	RDB3, S41		✓	✓		
Hymenoptera: Aculeata	Apidae	<i>Bombus humilis</i>	Brown-banded Carder-bee	S41	✓	✓	✓	✓	✓
Hymenoptera: Aculeata	Apidae	<i>Bombus sylvarum</i>	Shrill Carder-bee	Nationally Scarce (Nb), S41	✓		✓		✓
Hymenoptera: Aculeata	Apidae	<i>Colletes halophilus</i>	Sea Aster Bee	Nationally Scarce (Na), S41			✓	✓	
Diptera	Ulidiidae	<i>Doryceria graminum</i>	a picture-winged fly	pNT, S41	✓		✓		✓
Lepidoptera	Satyridae	<i>Lasiommata megera</i>	Wall	NT, S41 (BAP (research only))	✓		✓		✓

Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lytag	T EEC	The Rest	Coastal	Corridor
Lepidoptera	Satyridae	<i>Coenonympha pamphilus</i>	Small Heath	NT, S41 (BAP (research only))	✓	✓	✓	✓	✓
Lepidoptera	Arctiidae	<i>Arctia caja</i>	Garden Tiger	S41 (BAP (research only))	✓		✓		
Lepidoptera	Arctiidae	<i>Tyria jacobaeae</i>	Cinnabar	S41 (BAP (research only))	✓		✓		✓

Four of the Section 41 species belong to a group of Lepidoptera (moths and butterflies) which are still widespread and common though declining, and were formerly regarded as 'research-only' Biodiversity Action Plan (BAP) species. Though they have been added to Section 41, conservation action for 'research only' BAP species is focused on further research rather than protection of individual sites.

Further information about each of the Section 41 species is provided in Section [Error! Reference source not found.4.6.1](#) below.

#### 4.3.2 Key Species analysis

Amongst the 1,397 species recorded by the combined 2016-17 surveys, 159 species are here regarded as Key Species (using the criteria defined in Section 3.6.3). These 159 species comprise 11.4% of the total species list of 1,397, and are listed in Table 4.

Within the 159 Key Species, there were 31 Rare Key Species. These 31 species comprise 2.2% of the total species list of 1,397.

Note that most of the Section 41 species (Table 3) are also Key Species.

**Table 4:** The ‘Key Species’ of insect recorded by the combined 2016-17 surveys. The table is ordered by conservation status category starting with the rarest/most threatened species, and taxonomically within each category. Also indicated is the presence of each species within the five subsites of the survey area.

Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lytag	TEEC	The Rest	Coastal	Corridor
Coleoptera	Chrysomelidae	<i>Longitarsus quadriguttatus</i>	a flea-beetle	LC, NR					✓
Coleoptera	Cerambycidae	<i>Gracilia minuta</i>	Basket Longhorn	RDB2	✓	✓			
Hymenoptera: Aculeata	Crabronidae	<i>Philanthus triangulum</i>	Bee Wolf	RDB2	✓	✓	✓		
Hymenoptera: Aculeata	Apidae	<i>Andrena niveata</i>	a mining-bee	RDB2	✓	✓			
Coleoptera	Elateridae	<i>Agriotes sordidus</i>	a click-beetle	RDB3				✓	
Coleoptera	Corylophidae	<i>Orthoperus brunnipes</i>	a beetle	RDB3					✓
Coleoptera	Curculionidae	<i>Smicronyx reichi</i>	a weevil	RDB3	✓	✓	✓		
Coleoptera	Curculionidae	<i>Cosmobaris scolopacea</i>	a weevil	RDB3				✓	
Hemiptera: Heteroptera	Miridae	<i>Chlamydatus evanescens</i>	a mirid bug	RDB3	✓				
Hemiptera: Heteroptera	Miridae	<i>Lygus pratensis</i>	a mirid bug	RDB3	✓	✓	✓		✓
Hymenoptera: Aculeata	Chrysididae	<i>Hedychridium coriaceum</i>	a cuckoo wasp	RDB3			✓		
Hymenoptera: Aculeata	Chrysididae	<i>Hedychrum niemelai</i>	a cuckoo wasp	RDB3	✓		✓		
Hymenoptera: Aculeata	Formicidae	<i>Myrmica specioides</i>	an ant	RDB3			✓		✓
Hymenoptera: Aculeata	Pompilidae	<i>Dipogon bifasciatus</i>	a spider-hunting wasp	RDB3	✓				
Hymenoptera: Aculeata	Crabronidae	<i>Cerceris quinquefasciata</i>	Five-banded Weevil-wasp	RDB3, S41		✓	✓		
Hymenoptera: Aculeata	Crabronidae	<i>Diodontus insidiosus</i>	a digger-wasp	RDB3			✓		
Hymenoptera: Aculeata	Crabronidae	<i>Gorytes laticinctus</i>	a digger-wasp	RDB3			✓		

Invertebrate survey of Tilbury2

Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Hymenoptera: Aculeata	Apidae	<i>Ceratina cyanea</i>	Blue Carpenter-bee	RDB3	✓	✓	✓	✓	
Hymenoptera: Aculeata	Apidae	<i>Lasioglossum pauperatum</i>	Squat Furrow-bee	RDB3	✓		✓		
Hymenoptera: Aculeata	Apidae	<i>Nomada fulvicornis</i>	Six-banded Nomad Bee	RDB3			✓		
Lepidoptera	Noctuidae	<i>Calophasia lunula</i>	Toadflax Brocade	RDB3	✓		✓		
Coleoptera	Staphylinidae	<i>Tachyporus scitulus</i>	a rove-beetle	RDBK			✓		
Coleoptera	Staphylinidae	<i>Aleochara verna</i>	a rove-beetle	RDBK				✓	
Coleoptera	Clambidae	<i>Clambus pallidulus</i>	a beetle	RDBK			✓		
Coleoptera	Phalacridae	<i>Olibrus flavicornis</i>	a beetle	RDBK	✓	✓	✓	✓	✓
Coleoptera	Cryptophagidae	<i>Atomaria scutellaris</i>	a beetle	RDBK				✓	
Coleoptera	Curculionidae	<i>Coelositona cinerascens</i>	a weevil	RDBK			✓		
Coleoptera	Curculionidae	<i>Lixus scabricollis</i>	a weevil	RDBK			✓	✓	
Coleoptera	Curculionidae	<i>Isochnus sequensi</i>	a weevil	RDBK			✓		
Hemiptera: Auchenorrhyncha	Delphacidae	<i>Ribautodelphax imitans</i>	a planthopper	RDBK, S41	✓				
Pulmonata	Arionidae	<i>Arion (Arion) ater</i>	Large Black Slug	DD	✓		✓		
Coleoptera	Hydraenidae	<i>Aulacochthebius exaratus</i>	an aquatic beetle	NT			✓		
Diptera	Ulidiidae	<i>Dorycera graminum</i>	a picture-winged fly	pNT, S41	✓		✓	✓	
Diptera	Muscidae	<i>Helina intermedia</i>	a house fly	pNT			✓		
Diptera	Sarcophagidae	<i>Blaesoxipha plumicornis</i>	a flesh fly	pNT	✓				
Diptera	Tachinidae	<i>Cistogaster globosa</i>	a parasitic fly	NT	✓				

Invertebrate survey of Tilbury2

Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Lepidoptera	Satyridae	<i>Lasiommata megera</i>	Wall	NT, S41 (BAP (research only))	✓		✓		✓
Lepidoptera	Satyridae	<i>Coenonympha pamphilus</i>	Small Heath	NT, S41 (BAP (research only))	✓	✓	✓	✓	✓
Araneae	Linyphiidae	<i>Meioneta simplicitarsis</i>	a spider	NS					✓
Araneae	Zodariidae	<i>Zodarion italicum</i>	a spider	NS					✓
Araneae	Salticidae	<i>Ballus chalybeius</i>	a jumping spider	NS	✓	✓			
Geophilomorpha	Geophilidae	<i>Henia vesuviana</i>	a centipede	LC, NS					✓
Julida	Blaniulidae	<i>Choneiulus palmatus</i>	a millipede	LC, NS					✓
Coleoptera	Carabidae	<i>Bembidion fumigatum</i>	a ground beetle	LC, NS		✓			
Coleoptera	Carabidae	<i>Tachys bistrigatus</i>	a ground beetle	LC, NS			✓		
Coleoptera	Carabidae	<i>Elaphropus parvulus</i>	a ground beetle	LC, NS			✓		
Coleoptera	Carabidae	<i>Calathus ambiguus</i>	a ground beetle	LC, NS			✓		
Coleoptera	Carabidae	<i>Harpalus attenuatus</i>	a ground beetle	LC, NS			✓		
Coleoptera	Carabidae	<i>Ophonus azureus</i>	a ground beetle	LC, NS			✓		
Coleoptera	Carabidae	<i>Stenolophus teutonus</i>	a ground beetle	LC, NS			✓	✓	
Coleoptera	Carabidae	<i>Syntomus truncatellus</i>	a ground beetle	LC, NS			✓		
Coleoptera	Carabidae	<i>Brachinus crepitans</i>	Bombardier Beetle	LC, NS			✓	✓	✓
Coleoptera	Histeridae	<i>Saprinus aeneus</i>	a beetle	LC, NS					✓
Coleoptera	Scarabaeidae	<i>Onthophagus medius</i>	a dung beetle	LC, NS					✓
Coleoptera	Salpingidae	<i>Lissodema denticolle</i>	a beetle	LC, NS	✓				

## Invertebrate survey of Tilbury2

Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Coleoptera	Anthicidae	<i>Cyclodinus constrictus</i>	an ant-like flower beetle	LC, NS		✓			
Coleoptera	Anthicidae	<i>Cordicollis instabilis</i>	an ant-like flower beetle	LC, NS				✓	
Coleoptera	Chrysomelidae	<i>Phyllotreta consobrina</i>	a flea-beetle	LC, NS	✓	✓	✓		
Coleoptera	Chrysomelidae	<i>Phyllotreta punctulata</i>	a flea-beetle	LC, NS	✓			✓	
Coleoptera	Chrysomelidae	<i>Aphthona nigriceps</i>	a flea-beetle	LC, NS		✓	✓		
Coleoptera	Chrysomelidae	<i>Longitarsus ballotae</i>	a flea-beetle	LC, NS		✓	✓	✓	
Coleoptera	Chrysomelidae	<i>Longitarsus ganglbaueri</i>	a flea-beetle	LC, NS			✓		
Coleoptera	Chrysomelidae	<i>Longitarsus ochroleucus</i>	a flea-beetle	LC, NS		✓	✓		
Coleoptera	Chrysomelidae	<i>Podagrion fuscicornis</i>	a flea-beetle	LC, NS			✓		
Coleoptera	Chrysomelidae	<i>Podagrion fuscipes</i>	a flea-beetle	LC, NS					✓
Coleoptera	Chrysomelidae	<i>Cryptocephalus hypochaeridis</i>	a leaf-beetle	LC, NS	✓				
Dermaptera	Forficulidae	<i>Forficula lesnei</i>	Lesne's Earwig	LC, NS	✓	✓	✓	✓	
Diptera	Chloropidae	<i>Elachiptera austriaca</i>	a frit fly	LC, NS	✓		✓		
Diptera	Tachinidae	<i>Gymnosoma rotundatum</i>	a parasitic fly	LC, NS	✓				
Hemiptera: Heteroptera	Corixidae	<i>Sigara selecta</i>	an aquatic bug	LC, NS					✓
Hemiptera: Heteroptera	Saldidae	<i>Saldula opacula</i>	a shore-bug	LC, NS			✓		
Hemiptera: Heteroptera	Saldidae	<i>Saldula orthochila</i>	a shore-bug	LC, NS					✓
Hemiptera: Heteroptera	Saldidae	<i>Saldula pallipes</i>	a shore-bug	LC, NS			✓		

Invertebrate survey of Tilbury2

Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lytag	TEEC	The Rest	Coastal	Corridor
Hemiptera: Heteroptera	Coreidae	<i>Ceraleptus lividus</i>	Slender-horned Leatherbug	LC, NS	✓				
Hemiptera: Heteroptera	Scutelleridae	<i>Eurygaster maura</i>	Scarce Tortoise Shieldbug	LC, NS	✓				
Coleoptera	Phalacridae	<i>Phalacrus championi</i>	a beetle	Nationally Scarce (Na)			✓		
Coleoptera	Coccinellidae	<i>Platynaspis luteorubra</i>	a ladybird	Nationally Scarce (Na)	✓	✓			
Coleoptera	Apionidae	<i>Kalcapion semivittatum</i>	a weevil	Nationally Scarce (Na)			✓		
Coleoptera	Apionidae	<i>Protaetia laevicollis</i>	a weevil	Nationally Scarce (Na)		✓	✓		
Coleoptera	Curculionidae	<i>Rhinocyllus conicus</i>	a weevil	Nationally Scarce (Na)	✓	✓	✓	✓	
Coleoptera	Curculionidae	<i>Trichosirocalus rufulus</i>	a weevil	Nationally Scarce (Na)		✓		✓	
Coleoptera	Curculionidae	<i>Melanobaris laticollis</i>	a weevil	Nationally Scarce (Na)		✓	✓	✓	
Coleoptera	Curculionidae	<i>Tychius tibialis</i>	a weevil	Nationally Scarce (Na)		✓	✓	✓	
Coleoptera	Curculionidae	<i>Mecinus janthinus</i>	a weevil	Nationally Scarce (Na)			✓		
Hymenoptera: Aculeata	Crabronidae	<i>Argogorytes fargei</i>	a digger-wasp	Nationally Scarce (Na)			✓		
Hymenoptera: Aculeata	Crabronidae	<i>Mimumesa unicolor</i>		Nationally Scarce (Na)			✓		
Hymenoptera: Aculeata	Apidae	<i>Andrena labiata</i>	Red-girdled Mining-bee	Nationally Scarce (Na)			✓		
Hymenoptera: Aculeata	Apidae	<i>Colletes halophilus</i>	Sea Aster Bee	Nationally Scarce (Na), S41			✓	✓	
Hymenoptera: Aculeata	Apidae	<i>Hylaeus cornutus</i>	Spined Hylaeus	Nationally Scarce (Na)		✓	✓		
Hymenoptera: Aculeata	Apidae	<i>Lasioglossum pauxillum</i>	Lobe-spurred Furrow-bee	Nationally Scarce (Na)	✓		✓		

Invertebrate survey of Tilbury2

Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Hymenoptera: Aculeata	Apidae	<i>Nomada fucata</i>	Painted Nomad Bee	Nationally Scarce (Na)	✓		✓		
Hymenoptera: Aculeata	Apidae	<i>Sphecodes rubicundus</i>	Red-tailed Blood Bee	Nationally Scarce (Na)			✓		
Lepidoptera	Psychidae	<i>Epichnopterix plumella</i>	Round-winged Sweep	Nationally Scarce (Na)	✓	✓	✓		
Coleoptera	Staphylinidae	<i>Cypha discoidea</i>	a rove-beetle	Nationally Scarce (Nb)		✓			
Coleoptera	Staphylinidae	<i>Ocypus fortunatarum</i>	a rove-beetle	Nationally Scarce (Nb)			✓		
Coleoptera	Coccinellidae	<i>Scymnus limbatus</i>	a ladybird	Nationally Scarce (Nb)			✓		
Coleoptera	Coccinellidae	<i>Hippodamia variegata</i>	Adonis' Ladybird	Nationally Scarce (Nb)	✓	✓	✓		
Coleoptera	Ciidae	<i>Strigocis bicornis</i>	a beetle	Nationally Scarce (Nb)			✓		
Coleoptera	Apionidae	<i>Protaetia difformis</i>	a weevil	Nationally Scarce (Nb)		✓		✓	
Coleoptera	Apionidae	<i>Protaetia dissimile</i>	a weevil	Nationally Scarce (Nb)		✓			
Coleoptera	Apionidae	<i>Protaetia varipes</i>	a weevil	Nationally Scarce (Nb)	✓	✓	✓		
Coleoptera	Apionidae	<i>Catapion pubescens</i>	a weevil	Nationally Scarce (Nb)			✓		✓
Coleoptera	Curculionidae	<i>Otiorhynchus raucus</i>	a weevil	Nationally Scarce (Nb)				✓	
Coleoptera	Curculionidae	<i>Polydrusus pulchellus</i>	Sea-wormwood Weevil	Nationally Scarce (Nb)				✓	
Coleoptera	Curculionidae	<i>Larinus planus</i>	a weevil	Nationally Scarce (Nb)			✓		
Coleoptera	Curculionidae	<i>Magdalis cerasi</i>	a weevil	Nationally Scarce (Nb)		✓			
Coleoptera	Curculionidae	<i>Pselactus spadix</i>	a weevil	Nationally Scarce (Nb)				✓	
Coleoptera	Curculionidae	<i>Orthochaetes insignis</i>	a weevil	Nationally Scarce (Nb)		✓			
Coleoptera	Curculionidae	<i>Orthochaetes setiger</i>	a weevil	Nationally Scarce (Nb)			✓		✓
Coleoptera	Curculionidae	<i>Zacladus exiguus</i>	a crane's-bill weevil	Nationally Scarce (Nb)			✓	✓	✓

Invertebrate survey of Tilbury2

Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Coleoptera	Curculionidae	<i>Ceutorhynchus constrictus</i>	a weevil	Nationally Scarce (Nb)			✓	✓	
Coleoptera	Curculionidae	<i>Tychius pusillus</i>	a weevil	Nationally Scarce (Nb)			✓	✓	
Coleoptera	Curculionidae	<i>Tychius squamulatus</i>	a weevil	Nationally Scarce (Nb)			✓		
Coleoptera	Curculionidae	<i>Sibinia arenariae</i>	a weevil	Nationally Scarce (Nb)				✓	
Coleoptera	Curculionidae	<i>Mecinus collaris</i>	a weevil	Nationally Scarce (Nb)				✓	
Hemiptera: Auchenorrhyncha	Cixiidae	<i>Pentastiridius leporinus</i>	a lacehopper	Nationally Scarce (Nb)				✓	
Hemiptera: Auchenorrhyncha	Delphacidae	<i>Asiraca clavicornis</i>	a planthopper	Nationally Scarce (Nb)		✓	✓	✓	✓
Hemiptera: Heteroptera	Berytidae	<i>Berytinus hirticornis</i>	a stiltbug	Nationally Scarce (Nb)	✓		✓		✓
Hemiptera: Heteroptera	Lygaeidae	<i>Megalonotus antennatus</i>	a ground-bug	Nationally Scarce (Nb)			✓		
Hemiptera: Heteroptera	Lygaeidae	<i>Raglius alboacuminatus</i>	a ground-bug	Nationally Scarce (Nb)			✓		✓
Hemiptera: Heteroptera	Lygaeidae	<i>Tropistethus holosericeus</i>	a ground-bug	Nationally Scarce (Nb)		✓			
Hymenoptera: Aculeata	Tiphiidae	<i>Tiphia minuta</i>	The Small Tiphia	Nationally Scarce (Nb)	✓		✓		
Hymenoptera: Aculeata	Formicidae	<i>Ponera coarctata</i>	an ant	Nationally Scarce (Nb)				✓	
Hymenoptera: Aculeata	Pompilidae	<i>Auplopus carbonarius</i>	a spider-hunting wasp	Nationally Scarce (Nb)			✓		
Hymenoptera: Aculeata	Apidae	<i>Andrena bimaculata</i>	Large Gorse Mining-bee	Nationally Scarce (Nb)	✓		✓		
Hymenoptera: Aculeata	Apidae	<i>Bombus sylvarum</i>	Shrill Carder-bee	Nationally Scarce (Nb), S41	✓		✓		✓
Hymenoptera: Aculeata	Apidae	<i>Dasypoda hirtipes</i>	Pantaloona Bee	Nationally Scarce (Nb)	✓		✓		

Invertebrate survey of Tilbury2

Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lytag	TEEC	The Rest	Coastal	Corridor
Hymenoptera: Aculeata	Apidae	<i>Hylaeus signatus</i>	Large Yellow-faced Bee	Nationally Scarce (Nb)		✓	✓		
Hymenoptera: Aculeata	Apidae	<i>LasioGLOSSUM malachurum</i>	Sharp-collared Furrow-bee	Nationally Scarce (Nb)	✓		✓		✓
Hymenoptera: Aculeata	Apidae	<i>LasioGLOSSUM puncticolle</i>	Ridge-cheeked Furrow-bee	Nationally Scarce (Nb)	✓	✓	✓		✓
Hymenoptera: Aculeata	Apidae	<i>Megachile dorsalis</i>	Silvery Leaf-cutter Bee	Nationally Scarce (Nb)	✓	✓	✓		
Hymenoptera: Aculeata	Apidae	<i>Sphecodes crassus</i>	Swollen-thighed Blood Bee	Nationally Scarce (Nb)	✓				
Lepidoptera	Tischeriidae	<i>Coptotriche angusticollella</i>	a micro-moth	Nationally Scarce (Nb)	✓				
Lepidoptera	Sesiidae	<i>Sesia apiformis</i>	Hornet Moth	Nationally Scarce (Nb)			✓		✓
Lepidoptera	Sesiidae	<i>Bembecia ichneumoniformis</i>	Six-belted Clearwing	Nationally Scarce (Nb)	✓		✓		
Lepidoptera	Momphidae	<i>Mompha sturnipennella</i>	Kentish Cosmet	Nationally Scarce (Nb)	✓				
Lepidoptera	Oecophoridae	<i>Stathmopoda pedella</i>	Alder Signal	Nationally Scarce (Nb)			✓		
Lepidoptera	Noctuidae	<i>Mythimna l-album</i>	L-album Wainscot	Nationally Scarce (Nb)			✓		
Coleoptera	Dytiscidae	<i>Rhantus frontalis</i>	a diving beetle	Nationally Scarce					✓
Coleoptera	Hydrophilidae	<i>Cercyon nigriceps</i>	a beetle	Nationally Scarce					✓
Coleoptera	Hydrophilidae	<i>Cercyon obsoletus</i>	a beetle	Nationally Scarce					✓
Coleoptera	Hydraenidae	<i>Ochthebius viridis</i>	an aquatic beetle	Nationally Scarce		✓			
Coleoptera	Leiodidae	<i>Agathidium marginatum</i>	a beetle	Nationally Scarce			✓		

Invertebrate survey of Tilbury2

Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor		
Coleoptera	Staphylinidae	<i>Euplectus bonvouloiri</i>	a pselaphine rove-beetle	Nationally Scarce				✓			
Coleoptera	Staphylinidae	<i>Dacryla fallax</i>	a rove-beetle	Nationally Scarce		✓					
Coleoptera	Staphylinidae	<i>Parameotica difficilis</i>	a rove-beetle	Nationally Scarce			✓				
Coleoptera	Staphylinidae	<i>Carpelimus halophilus</i>	a rove-beetle	Nationally Scarce			✓				
Coleoptera	Staphylinidae	<i>Carpelimus lindrothi</i>	a rove-beetle	Nationally Scarce			✓				
Coleoptera	Staphylinidae	<i>Astenus immaculatus</i>	a rove-beetle	Nationally Scarce	✓			✓			
Coleoptera	Staphylinidae	<i>Sunius melanocephalus</i>	a rove-beetle	Nationally Scarce			✓				
Coleoptera	Nitidulidae	<i>Meligethes fulvipes</i>	a pollen beetle	Nationally Scarce				✓			
Coleoptera	Nitidulidae	<i>Meligethes rotundicollis</i>	a pollen beetle	Nationally Scarce			✓	✓			
Coleoptera	Cryptophagidae	<i>Atomaria pulchra</i>	a beetle	Nationally Scarce		✓					
Diptera	Hybotidae	<i>Trichina opaca</i>	a hybotid fly	Nationally Scarce	✓						
Diptera	Dolichopodidae	<i>Sciapus laetus</i>	a long-headed fly	Nationally Scarce			✓				
Diptera	Syrphidae	<i>Triglyphus primus</i>	a hoverfly	Nationally Scarce			✓				
Diptera	Micropezidae	<i>Micropeza lateralis</i>	a stilt-fly	pNationally Scarce <sup>2</sup>	✓						
Diptera	Sciomyzidae	<i>Pherbellia dorsata</i>	a snail-killing fly	Nationally Scarce	✓						
Diptera	Chloropidae	<i>Dicraeus styriacus</i>	a frit fly	Nationally Scarce			✓				
TOTAL NUMBER OF KEY SPECIES							52	34	98	16	54

<sup>2</sup> The 'p' prefix indicates a provisional status assessment.

### 4.3.3 ISIS results

ISIS covers 1,180 of the 1,397 species identified by the survey. Within the 1,180 species covered by ISIS, nine Broad Assemblage Types (BATs) were well represented (i.e., represented by more than 15 species) and are detailed in Table 5.

ISIS Rarity Scores allow a comparison of the conservation importance of the assemblages present in different habitats and are shown in Table 5. Also shown are the numbers of species on which these scores are based: the greater the number of species, the more confident we can be in the accuracy of the Rarity Score.

**Table 5:** The BATs represented in the survey area, their ISIS Rarity Scores and the number of species on which each score is based. Also included are the Rarity Score thresholds and an indication of whether the assemblages exceed this threshold or not.

BAT code	BAT name	No. of species	ISIS Rarity Score	ISIS Rarity Score 'favourable condition' threshold	Favourable condition reached?
F2	grassland & scrub matrix	397	143.7	160	No
F1	unshaded early successional mosaic	243	218.2	160	Yes
W2	mineral marsh & open water	110	168.2	150	Yes
W3	permanent wet mire	54	192.3	180	Yes
A1	arboreal canopy	52	166.0	170	No
A2	wood decay	47	211.4	190	Yes
M3	saltmarsh, estuary & mud flat	22	277.3	200	Yes
F3	shaded field & ground layer	20	155.6	150	Yes
W1	flowing water	16	156.3	150	Yes

### 4.3.4 Pantheon results

The list of 1,397 species or aggregates was entered into Pantheon from the 2016 and 2017 survey work combined. Nine taxa were unmatched, so Pantheon processed a list of 1,388 taxa.

Pantheon covers 1,224 of the 1,388 species processed. Within that subset, four Broad Biotopes were represented, and are detailed in Table 6.

**Table 6:** The Broad Biotopes represented in the survey area, with the number of included species, the percentage of the national assemblage this represents and the Species Quality Index (SQI).

Broad Biotope	No. of species	% representation	SQI	No. of S41 or Key Species <sup>3</sup>
open habitats	759	17	142	102
wetland	208	8	133	19
tree-associated	166	5	136	15
coastal	32	7	272	16

Within the 1,224 species covered by Pantheon are representatives of 20 Specific Assemblage Types (SATs) (Table 7). Only three of these SATs are represented by 15 or more species which is a minimum requirement for calculating a reliable Species Quality Index.

**Table 7:** The Specific Assemblage Types represented in the survey area, with the number of included species, the Species Quality Index (SQI), and an indication of whether the assemblages meets the Favourable condition criteria or not.

Broad biotope	Habitat	Specific Assemblage Type (SAT)	No. of species	SQI	Favourable condition criteria met?
open habitats	short sward & bare ground	bare sand & chalk	45	233	Favourable
open habitats	short sward & bare ground	open short sward	37	214	Favourable
tree-associated	decaying wood	bark & sapwood decay	30	200	Favourable
coastal	saltmarsh	saltmarsh & transitional brackish marsh	11	355	Favourable but poorly represented
open habitats		open habitats >> rich flower resource	9	164	Unfavourable
wetland	marshland	open water on disturbed mineral sediments	8	100	Favourable but poorly represented
wetland	peatland	reed-fen & pools	8	200	Unfavourable
open habitats		open habitats >> scrub edge	5	138	Unfavourable
open habitats		open habitats >> scrub-heath & moorland	5	133	Unfavourable
wetland	marshland	undisturbed fluctuating marsh	5	160	Favourable but poorly represented
tree-associated	decaying wood	heartwood decay	3	200	Unfavourable

<sup>3</sup> There are substantial discrepancies between Pantheon and this report with respect to which species are correctly regarded as Key Species.

Broad biotope	Habitat	Specific Assemblage Type (SAT)	No. of species	SQI	Favourable condition criteria met?
tree-associated	decaying wood	fungal fruiting bodies	2	250	Unfavourable
wetland		marshland >> undisturbed fluctuating marsh	2	160	Unfavourable
tree-associated	decaying wood	epiphyte fauna	2	100	Unfavourable
wetland	peatland	moss & tussock fen	1	400	Unfavourable
open habitats	short sward & bare ground	exposed sea-cliff	1	400	Unfavourable
wetland	running water	riparian sand	1	100	Unfavourable
open habitats		short sward & bare ground >> exposed sea-cliff	1	400	Unfavourable
wetland	running water	slow-flowing rivers	1	100	Unfavourable
open habitats		short sward & bare ground >> bare sand & chalk	1	233	Unfavourable

#### 4.4 RESULTS: THE FIVE SUBSITES

The species lists for the five subsites vary from 123 for the Coastal Strip to 886 for The Rest. There are substantial differences between subsites in the percentage of Key Species, which varies from 13.0% to 7.2%, and in the percentage of Rare Key Species, which varies from 3.3% to 1.3% (Table 8).

**Table 8:** Results of Key Species analysis for each of the five subsites.

	Coastal	The Rest	Corridor	Lytag	TEEC
Total number of species	123	886	576	634	469
Total number of Key Species	16	98	54	52	34
% Key Species	13.0%	11.1%	9.4%	8.2%	7.2%
Total number of Rare Key Species	4	21	9	14	6
% Rare Key Species	3.3%	2.4%	1.6%	2.2%	1.3%

#### 4.5 SECTION 41 SPECIES ACCOUNTS

For each of the Section 41 species found by this survey, a short account is provided, describing the ecology and distribution of the species in Britain, followed by details of its occurrence during the current survey.

***Ribautodelphax imitans* (Hemiptera: Auchenorrhyncha: Delphacidae) a planthopper, RDBK, S41**

Kirby (1992) was aware of records only from the south coasts of Devon (Axmouth - Lyme Regis) and Dorset (Southwell, Portland; Corfe). It was discovered at Rammey Marsh, Middlesex in 2000 and was discovered at a brownfield site near Tilbury in 2006, then recorded from Tilbury Power Station in 2007 (<http://www.essexfieldclub.org.uk/portal/p/Species+Account/s/Ribautodelphax+imitans>; Colin Plant Associates, 2008). It is a grass-feeding species, with *Festuca arundinacea* a known foodplant on the continent. It occurs in calcareous grassland but also inhabits other types of dry grassland, as at Tilbury.

Recorded from the Lytag site in 2016.

***Cerceris quinquefasciata* (Hymenoptera: Aculeata: Crabronidae) Five-banded Weevil-wasp, RDB3, S41**

A medium-sized wasp, banded in yellow and black. It was formerly widespread in southern England but has contracted into the south-east with strongholds in the East Thames Corridor, Ipswich and Colchester areas and in the Breckland. It nests gregariously in areas of well-insolated, often compacted, bare sand. Females provision their brood cells with weevils, using a range of smaller species including Apionidae and *Sitona* species. Though the wasps prey on common weevil species, they may be dependent on unmanaged sites with diverse flower-rich swards from which to collect their prey.

Recorded from the TEEC area and The Rest in 2016.

***Bombus humilis* (Hymenoptera: Aculeata: Apidae) Brown-banded Carder-bee, S41**

This ginger bumblebee (Figure 5) is strongly associated with tall but open-structured (i.e., not rank) flower-rich grasslands. It is a declining species, having disappeared from many inland areas, and is now almost confined to coastal grasslands in southern England and Wales (Edwards and Jenner, 2005). Brown-banded Carder-bees form small nests, often with fewer than 100 individuals, located on the ground surface, where they are exposed to the sun. Being a relatively long-tongued species, workers prefer to forage from tubular flowers such as those of legumes, labiates and also knapweeds *Centaurea* spp. This bee requires suitable foraging resources (nectar and pollen) throughout the entire season from May to September.

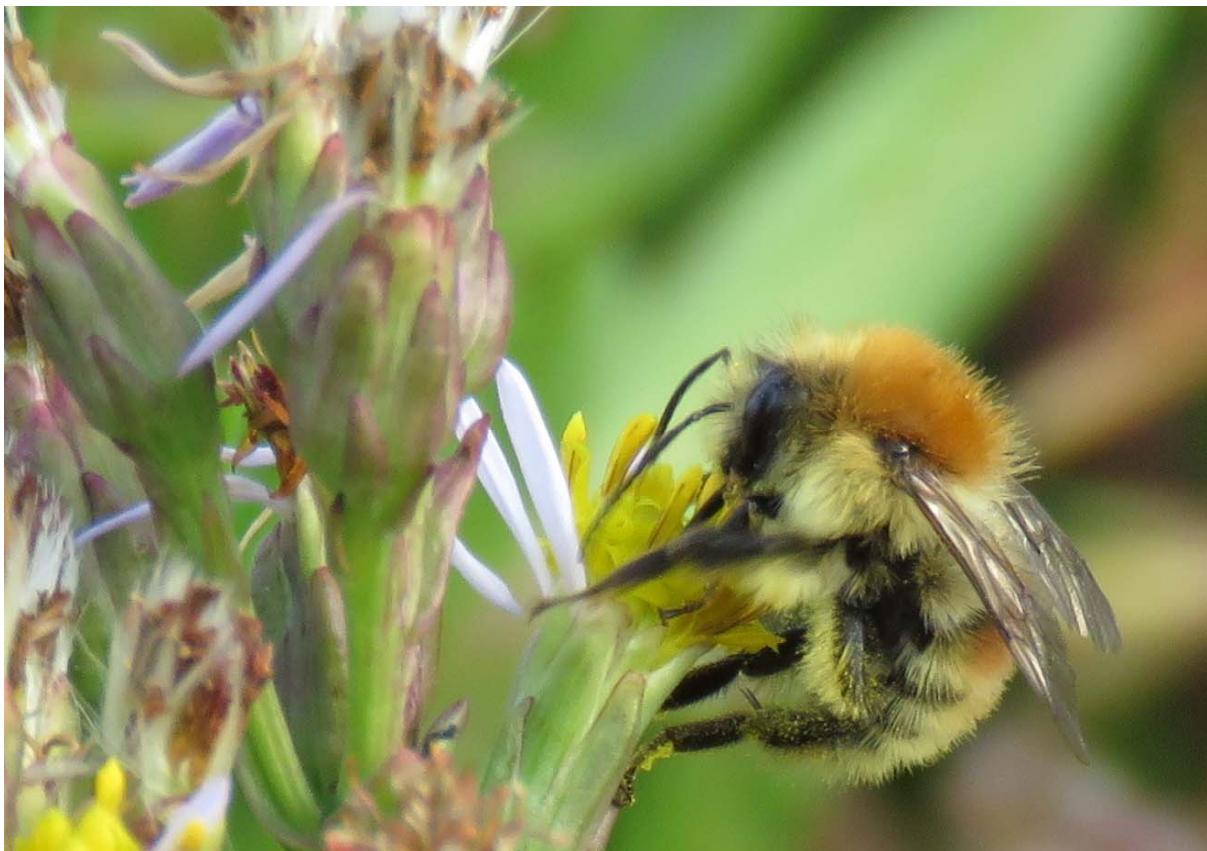


Figure 5: Brown-banded Carder-bee foraging from Sea Aster at the Coastal Strip.

During the 2017 survey, this was often the commonest bumblebee and was recorded in all five subsites.

***Bombus sylvarum* (Hymenoptera: Aculeata: Apidae) Shrill Carder-bee, Nationally Scarce (Nb), S41**

This bumblebee has a higher pitched buzz than others. It has experienced drastic declines in range over past decades, becoming extinct in most of its range, and is now known from just five areas of Britain in southern England and South Wales (Edwards and Jenner, 2005). It requires foraging habitat which is rich in legumes and labiates, including Red Clover, Red Bartsia, knapweeds and woundworts. Nests are constructed on the ground surface within tall, open swards.

Shrill Carder-bees were recorded from the Infrastructure Corridor, the Lytag site and The Rest. Foraging was noted from Black Horehound, Creeping Thistle and Common Toadflax. Foraging was also noted from Sea Aster just outside the survey area boundary though Shrill Carder-bees were not observed on the Coastal Strip.

***Colletes halophilus* (Hymenoptera: Aculeata: Apidae) Sea Aster Bee, Nationally Scarce (Na), S41**

For an account of this species, see Section 3.4.

For the results of targeted survey for this species, see Section 4.2.

***Dorycera graminum* (Diptera: Ulidiidae) a picture-winged fly, pNT, S41**

Often called the Phoenix Fly, this is a large picture-winged fly with a southern British distribution concentrated in the Thames Estuary but extending northwards to Warwickshire. Its ecological requirements are not well understood. It occurs on a wide range of grasslands, growing on a range of soil types, typically with some anthropogenic disturbance (Ismay, 2000). *D. graminum* was assessed as Rare (RDB3) by Falk (1991b) but the provisional assessment of Falk *et al.* (2016) is of a Near Threatened species. Adults may be found from mid-May to the end of June, exceptionally into July.

During the 2016-17 survey, this species was recorded from the Infrastructure Corridor, the Lytag site and The Rest.

***Lasiommata megera* (Lepidoptera: Satyridae) Wall, NT, S41 (BAP (research only))**

One of the ‘browns’ but with a delicate pattern of orange markings over brown upper-wings, with a series of eyespots. The Wall is widely distributed over southern Britain, extending to the coasts of Northumberland and Galloway but it has declined severely, particularly in the inland parts of its range. It breeds in short, open grassland where the turf is broken or stony. It is found in coastal grasslands as well as inland habitats such as disturbed or derelict land, disused quarries, cliff-slopes and banks. The caterpillars feed on a variety of grasses including Tor-grass *Brachypodium pinnatum*, False Brome *B. sylvaticum*, Cock’s-foot *Dactylis glomerata* and Yorkshire-fog *Holcus lanatus* (Asher *et al.*, 2001).

Conservation action for this species includes national monitoring and research programmes.

Only two individuals were observed by the author in 2017, one from the Infrastructure Corridor (where also recorded in 2016) and one on the Lytag site. Wall was also recorded from the Coastal Strip in 2017, and from The Rest in 2016.

***Coenonympha pamphilus* (Lepidoptera: Satyridae) Small Heath, NT, S41 (BAP (research only))**

A rather small grassland butterfly with orange and brown markings. The Small Heath is one of the most widely distributed butterflies in Britain, with records from the vast majority of 10-km squares. It inhabits grassland, favouring shorter swards of fine-leaved grasses on well-drained soils. The caterpillars feed on a variety of grasses including fescues *Festuca*, meadow-grasses *Poa* and bents *Agrostis* (Asher *et al.*, 2001). Although its range has remained stable, many colonies have died out and the abundance of this butterfly at monitored sites has declined over recent decades. This triggered concern for the future of this species and was the reason for its addition to the BAP Priority Species list, but only for further research. On the basis of a long-term decline and a 10-year population decline of 29%, Fox *et al.* (2010) regarded this species as Near Threatened.

During the 2016-17 survey, this species was frequently recorded and was present in all five subsites.

***Arctia caja* (Lepidoptera: Arctiidae) Garden Tiger, S41 (BAP (research only))**

This is a widespread moth throughout Britain and can still be regarded as a common species, though one that has declined substantially. Fox *et al.* (2013) reported a decline of 92% for Garden Tiger over a 40 year period. It was on the basis of a substantial decline that

the species was added to the BAP list, with conservation action intended through research and monitoring, rather than site protection.

Garden Tiger was recorded from the Lytag site in 2016 and from The Rest in 2017.

#### ***Tyria jacobaeae* (Lepidoptera: Arctiidae) Cinnabar, S41 (BAP (research only))**

This is a common moth occurring throughout most of England and Wales though becoming more local and coastal into northern England and Scotland. The black-and-scarlet adults are as distinctive as the black-and-orange ringed caterpillars, feeding mainly on common ragwort *Senecio jacobaea*. The addition of this species to the BAP list was on the basis of a substantial national decline. Action for this species should take place through research programmes, national agricultural and forestry schemes, and national monitoring but will not emphasise site protection at the local level.

During the 2016-17 survey, this species was recorded from the Infrastructure Corridor, the Lytag site and The Rest.

#### **4.6 OTHER NOTEWORTHY SPECIES**

##### ***Monacha* sp. (Pulmonata: Helicidae) a snail, new to Britain**

On 3rd May 2017, an unfamiliar snail (Figure 6) was found on the Infrastructure Corridor, by sampling on the south-facing bank at the north end of the Hyundai compound off Fort Road. It was immediately apparent that this was potentially a species new to Britain, and this was soon confirmed from photographs by Dr Roy Anderson in Belfast, an authority on the slugs and snails of Britain and Ireland.

Research is ongoing into the specific identity of this snail but it certainly belongs to genus *Monacha* and the best current hypothesis is that it belongs to *Monacha ocellata* which is known from Marmara, Turkey. It seems most likely that, even if this snail does not belong to *M. ocellata*, it is a species native to the eastern Mediterranean. As such, there can be little doubt that the population at Tilbury2 is non-native, introduced to Britain inadvertently through trade movements.

Though a snail new to Britain is of biological interest, the presence of this non-native species is not a material consideration for the proposed development.



Figure 6: A snail new to Britain of the genus *Monacha*, part of a large population at Tilbury2.

## 5 Assessments

A total of 1,397 species of invertebrate was identified from the survey area from a very wide range of taxonomic groups. This forms an excellent basis on which to make a robust and accurate assessment of the importance of the site for invertebrate conservation.

### 5.1 SURVEY AREA ASSESSMENT

159 Key Species were found, comprising 11.4% of the 1,397 species found by this survey in total. Compared to other sites proposed for development which the author has surveyed, the figure of 11.4% is very high, much higher than the mean of 5.06% (standard deviation = 3.23, sample size = 59). This very high percentage of Key Species is a strong indication of a site of high conservation importance for invertebrates in a national context.

31 Rare Key Species were found, comprising 2.2% of the 1,397 species found by this survey in total. This figure is also very high compared to other sites proposed for development which the author has surveyed, much higher than the mean of 0.68% (standard deviation = 0.91, sample size = 59). This very high percentage of Rare Key Species is consistent with the percentage of Key Species and supports the assessment as a site of high conservation importance for invertebrates in a national context.

One could question whether there is a bias in these statistics, which compare a data set of surveys carried out by the author with the 2016-17 results combining surveys by Colin Plant Associates and the author. This can be addressed by carrying out the same Key Species analysis for the author's 2017 survey alone. 120 Key Species were found by the author in 2017, comprising 12.0% of the 1,003 species found in total. 19 Rare Key Species were found, comprising 1.9%. Thus the Key Species analysis of 2017 data alone also yields very high percentages. There is no evidence of a bias from combining surveys from two different surveyors.

ISIS and Pantheon offer additional methods of assessing the survey area's importance in a national context. The survey area supports a wide range of invertebrate assemblages, with nine ISIS Broad Assemblage Types (BATs) being well represented. Seven of the nine BATs yield high or very high Rarity Scores which suggest these habitats are nationally important/in favourable condition. The high-scoring habitats include the coastal saltmarsh, the open, early-successional habitats, all the wetland habitats, and wood decay habitats. The Rarity Scores for the two remaining BATs ('grassland & scrub matrix' and 'arboreal canopy') fall below the thresholds set for national importance. Pantheon has superseded ISIS, and though its results are more difficult to put into context, the Species Quality Index (SQI) values for the Broad Biotopes appear to be low (ranging from 133 to 142), in contrast to the ISIS Rarity Scores. However, Pantheon also identified the coastal Broad Biotope as supporting a very high quality assemblage, with a very high SQI of 272. In conclusion, the results of ISIS and Pantheon seem to be discordant except in finding that the coastal habitats are nationally important. For the remaining habitats at Tilbury2, ISIS indicates that most of them support nationally important assemblages of invertebrates; Pantheon may not support this conclusion but its results are more difficult to put into context.

Aside from these analyses, the simple fact that such a large number of Key Species (159) has been found at Tilbury2, including a large number (31) of Britain's rarest and most threatened species, is indicative of a site of national importance.

Six Section 41 species were found to occur at Tilbury2 (as well as four of the 'research only' Section 41 moths and butterflies). Target species searches suggested that three other Section 41 species may be present within the survey area and this too should be taken into account in the assessment.

The Tilbury2 survey area is a site of high conservation importance for invertebrates in a national context. This is strongly indicated by the Key Species analysis, and by the numbers of Key Species and Section 41 species, and is supported by ISIS analysis though may not be fully supported by Pantheon analysis.

## 5.2 SUBSITE ASSESSMENTS

Each of the five subsites received sufficient survey coverage to enable a robust and accurate assessment of its conservation importance to be made. This statement is unequivocal for most of the subsites, with long species lists (between 469 and 886 species; Table 8) resulting from intensive survey effort. Survey of the Coastal Strip yielded only 123 species but this simply reflects the lower species richness of saltmarsh habitat, which supports a smaller but more specialised fauna, and still enables a robust and accurate assessment to be made.

The Coastal Strip yielded the highest percentages of Key Species (13.0%) and Rare Key Species (3.3%). Many of these Key Species are specialists on saltmarsh habitat which were found nowhere else within the survey area. The importance of the Coastal Strip was supported by ISIS analysis which found the 'saltmarsh, estuary & mud flat' assemblage to have a very high Rarity Score (277.3) though represented by relatively few species (22). Pantheon analysis also supported this assessment, with the coastal Broad Biotope yielding a Species Quality Index of 272 (based on 32 species). The Coastal Strip is important for the Section 41 Sea Aster Bee *Colletes halophilus* which specialises on this saltmarsh plant, a plant which also provides important forage for another Section 41 species, the Brown-banded Carder-bee *Bombus humilis*. The Coastal Strip is thus the most important subsite

within a nationally important site. However, the importance of the Coastal Strip should be assessed in the context of the saltmarsh resource elsewhere in the estuary. Though there is only a narrow strip of saltmarsh between the concrete landward sea defences and the estuarine mudflats, this strip must also have importance as connecting habitat between saltmarshes to either side.

The TEEC area and Lytag area appear to be the least important subsites, with 7.2% and 8.2% Key Species respectively, though still supporting a large number of Key Species, and particularly in the case of the Lytag site, a large number and percentage of Rare Key Species. Both are important for a number of Section 41 species, and the Lytag site is the only area which supports the Section 41 planthopper *Ribautodelphax imitans*.

Though the Lytag site has previously been regarded as the most important part of the survey area for invertebrates (Colin Plant Associates, 2008), The Rest of the main part of the site is now more important than the TEEC and Lytag areas. More species (886) were recorded from the rest than any other subsite and the percentages of Key Species (11.1%) and Rare Key Species (2.4%) were both very high and second only to the Coastal Strip. Of the ten Section 41 species recorded from the survey area, all but the planthopper *Ribautodelphax imitans* were recorded from The Rest.

Finally, the Infrastructure Corridor ranks as the third most important of the five subsites, with 9.4% Key Species. Rare Key Species (1.6%) are a little more poorly represented relative to the other subsites, with only the TEEC area yielding a lower percentage (1.3%). The Infrastructure Corridor supports Brown-banded Carder-bee *Bombus humilis*, Shrill Carder-bee *Bombus sylvarum* and the picture-winged fly *Dorycera graminum* (all three are Section 41 species). The Infrastructure Corridor is probably of national importance in its own right.

## 6 Acknowledgements

I would like to thank Dominic Woodfield and Rebecca Read for arranging this survey and for their assistance and advice throughout. I am grateful to Martin Wade, Tony Lawler, Nick Martin, Clare Smith, Jenis Mistry, Lloyd Rowe and others at POTLL for their assistance with access arrangement to various parts of the survey area. Peter Harvey and David Gibbs assisted with identification of invertebrate samples and I am very grateful for their expertise. Roy Anderson has been an invaluable help in trying to identify the *Monacha* snail discovered new to Britain by this survey. I thank Dominic Woodfield for comments on the first version of this report.

## 7 References

- Anon. (2005). *Organising surveys to determine site quality for invertebrates: a framework guide for ecologists*. Peterborough: English Nature.
- Asher, J., Warren, M., Fox, R., Harding, P., Jeffcoate, G. and Jeffcoate, S. (2001). *The millennium atlas of butterflies in Britain and Ireland*. Oxford: Oxford University Press.
- Colin Plant Associates (2008). *Tilbury Power Station, Essex. Invertebrate survey. Final report (incorporating analysis of aquatic assemblage)*. Report number BS/2235/07rev2. Report to Bioscan (UK) Ltd.
- Colin Plant Associates (2016). *Land adjacent to Tilbury Power Station, Essex. Invertebrate survey report*. Report number BS/29911/16. Report to Bioscan (UK) Ltd.

- Drake, C.M. (2017). *A review of the status of Larger Brachycera flies of Great Britain. Acroceridae, Asilidae, Athericidae, Bombyliidae, Rhagionidae, Scenopinidae, Stratiomyidae, Tabanidae, Therevidae, Xylomyidae.* Species Status, number 29. Natural England Commissioned Reports, number 192. Natural England.
- Drake, C.M., Lott, D.A., Alexander, K.N.A. and Webb, J. (2007). *Surveying terrestrial and freshwater invertebrates for conservation evaluation.* Natural England Research Report NERR005. Sheffield: Natural England.
- Edwards, M. and Jenner, M. (2005). *Field Guide to the Bumblebees of Great Britain and Ireland.* Ocelli.
- Edwards, R. (ed.) (1997). *Provisional atlas of the aculeate Hymenoptera of Britain and Ireland, part 1.* Huntingdon: Biological Records Centre.
- Edwards, R. and Telfer, M.G. (eds) (2001). *Provisional atlas of the aculeate Hymenoptera of Britain and Ireland, part 3.* Huntingdon: Biological Records Centre.
- Falk, S. (1991a). *A review of the scarce and threatened bees, wasps and ants of Great Britain.* Research and survey in nature conservation, number 35. Peterborough: Nature Conservancy Council.
- Falk, S. (1991b). *A review of the scarce and threatened flies of Great Britain (part 1).* Research and survey in nature conservation, number 39. Peterborough: Nature Conservancy Council.
- Falk, S.J., Ismay, J.W. and Chandler, P.J. (2016). *A provisional assessment of the status of Acalyptratae flies in the UK.* Natural England Commissioned Reports, number 217. Natural England.
- Fox, R., Parsons, M.S., Chapman, J.W., Woiwod, I.P., Warren, M.S. and Brooks, D.R. (2013). *The State of Britain's Larger Moths 2013.* Butterfly Conservation and Rothamsted Research, Wareham.
- Fox, R., Warren, M.S., Brereton, T.M., Roy, D.B. and Robinson, A. (2010). A new Red List of British butterflies. *Insect Conservation and Diversity*, **4**, 159 - 172.
- Heal, N.F. (2003). *Triotemnus coryli* (Perris) (Scolytidae) rediscovered. *The Coleopterist*, **12**, 79 - 82.
- Hyman, P.S. (revised by Parsons, M.S.) (1992). *A review of the scarce and threatened Coleoptera of Great Britain. Part 1.* UK Nature Conservation, number 3. Peterborough: Joint Nature Conservation Committee.
- Ismay, J.W. (2000). *The status, distribution and biology of Dorycera graminum (Fabricius) (Diptera, Ulidiidae).* English Nature Research Reports, number 395. Peterborough: English Nature.
- IUCN (2001). *IUCN Red List Categories and Criteria: version 3.1. Prepared by the IUCN Species Survival Commission.* Gland, Switzerland: International Union for Conservation of Nature.
- Kirby, P. (1992). *A review of the scarce and threatened Hemiptera of Great Britain.* UK Nature Conservation, number 2. Peterborough: Joint Nature Conservation Committee.

- Lane, S.A. (2010). *Lymantria coryli* (Perris) (Curculionidae) discovered in Warwickshire (VC 38). *The Coleopterist*, **19**, 44.
- Lee, J. (2016). *Lymantria coryli* (Perris) (Curculionidae) in Suffolk. *The Coleopterist*, **25**, 51 - 52.
- Lyszkowski, R.M., Owen, J.A. and Taylor, S. (1992). *Corticaria abietorum* Motschulsky (Col.: Lathridiidae) new to Britain. *Entomologist's record and journal of variation*, **104**, 67 - 69.
- Schedl, K.E. (1981). Familie: Scolytidae (Borken- und Ambrosiakäfer). Pp. 34 - 99 in Freude, H., Harde, K.W. and Lohse, G.A. (eds). *Die Käfer Mitteleuropas, Band 10*. Krefeld: Goecke & Evers.
- Shirt, D.B. (ed.) (1987). *British Red Data Books: 2. Insects*. Peterborough: Nature Conservancy Council.
- Telfer, M.G. (2016). *Species Status Review. A review of the beetles of Great Britain: Ground Beetles (Carabidae)*. Species Status, number 25. Natural England Commissioned Reports, number 189. Peterborough: Natural England.

## **Appendix 1: British Conservation Status Categories – Definitions**

### **1.1 Status Categories and Criteria Version 1 (Shirt, 1987)**

These status categories and criteria were introduced for British insects by Shirt (1987) and received some modifications by later authors (e.g. Hyman and Parsons (1992)).

#### **Red Data Book category EXTINCT**

Definition Species which were formerly native to Britain but have not been recorded since 1900.

#### **Red Data Book category 1, Endangered**

Definition Species in danger of extinction and whose survival is unlikely if causal factors continue to operate. Endangered species either (a) occur as only a single population within one 10-km square, or (b) only occur in especially vulnerable habitats, or (c) have been declining rapidly or continuously for twenty years or more to the point where they occur in five or fewer 10-km squares, or (d) may already have become extinct.

#### **Red Data Book category 2, Vulnerable**

Definition Species which are likely to move into the Endangered category in the near future if causal factors continue to operate. Vulnerable species are declining throughout their range or occupy vulnerable habitats.

#### **Red Data Book category 3, Rare**

Definition Species which occur in small populations and although not currently either Endangered or Vulnerable are at risk. Rare species exist in 15 or fewer 10-km squares, or are more widespread than this but dependent on small areas of especially vulnerable habitat.

#### **Red Data Book category I, Indeterminate**

Note: Best written as ‘RDBi’ rather than ‘RDBI’ as the latter is easily confused with ‘RDB1’ (Endangered).

Definition Species considered to be either Endangered, Vulnerable or Rare but with insufficient information to say which.

#### **Red Data Book category K, Insufficiently Known**

Definition Species suspected to merit either Endangered, Vulnerable, Rare or Indeterminate status but lacking sufficient information. Species included in this category may have only recently been discovered in Britain, or may be very poorly recorded for a variety of reasons.

#### **Nationally Scarce Category A, Na.**

Definition Species which do not fall within Red Data Book categories but which are nonetheless uncommon in Great Britain and thought to occur in 30 or fewer (typically between 16 and 30) 10-km squares of the National Grid, or for less well-recorded groups, in seven or fewer vice-counties.

#### **Nationally Scarce Category B, Nb.**

Definition Species which do not fall within Red Data Book categories but which are nonetheless uncommon in Great Britain and thought to occur in between 31 and 100 10-km

squares of the National Grid, or for less well-recorded groups, between eight and twenty vice-counties.

**Nationally Scarce, N.**

**Definition** Species which do not fall within Red Data Book categories but which are nonetheless uncommon in Great Britain. This status category has been used where information has not been sufficient to allocate a species to either Na or Nb. These species are thought to occur in between 16 and 100 10-km squares of the National Grid.

## **1.2 Status Categories and Criteria Version 2 (IUCN, 2001)**

These later status categories and criteria are based on IUCN Red List Categories and Criteria version 3.1 (IUCN, 2001) and have been applied to British butterflies, dragonflies, water beetles and a few other invertebrate groups.

### **Critically Endangered (CR)**

A taxon is Critically Endangered when the best available evidence indicates that it is facing an **extremely high** risk of extinction in the wild.

### **Endangered (EN)**

A taxon is Endangered when the best available evidence indicates that it is facing a **very high** risk of extinction in the wild.

### **Vulnerable (VU)**

A taxon is Vulnerable when the best available evidence indicates that it is facing a **high** risk of extinction in the wild.

**N.B.:** Species belonging to the above three categories may be collectively referred to as **Threatened**.

### **Data Deficient (DD)**

A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution are lacking. Data Deficient is therefore not a category of threat. Listing of taxa in this category indicates that more information is required and acknowledges the possibility that future research will show that threatened classification is appropriate.

The DD category effectively replaces the Indeterminate (RDBi) and Insufficiently Known (RDBK) categories of the earlier version.

### **Near Threatened (NT)**

A taxon is Near Threatened when it has been evaluated against the criteria but does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in the near future.

### **Least Concern (LC)**

A taxon is Least Concern when it has been evaluated against the criteria and does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened. Widespread and abundant taxa are included in this category.

### **Not Applicable (NA)**

A taxon is Not Applicable when it is regarded as a non-native in Britain, or occurs solely as a natural vagrant.

### **1.3 Status Categories and Criteria Version 3 (GB Rarity Status)**

These status categories and criteria operate in parallel with version 2 and are defined specifically for use in Britain where they provide some continuity with version 1, allowing the continued use of “rare and scarce” species for site assessment purposes.

#### **Nationally Rare (NR)**

Native species which have not been recorded from more than 15 British hectads in recent decades and where there is reasonable confidence that exhaustive recording would not find them in more than 15 hectads. This category includes species which are probably extinct.

#### **Nationally Scarce (NS)**

Native species which are not regarded as Nationally Rare AND which have not been recorded from more than 100 British hectads in recent decades and where there is reasonable confidence that exhaustive recording would not find them in more than 100 hectads.

## Appendix 2: Combined list of invertebrates recorded at Tilbury2 in 2016 by Colin Plant Associates and in 2017 by Mark G. Telfer

Key Species and Section 41 species are listed in red text. The table is in taxonomic sequence. Full details of all the 2017 records are held in a computer database by the author that may be consulted if required to provide further information such as precise localities, grid references, quantity, sex and life-stage. Also indicated is the presence (=‘1’) of each species within the five subsites of the survey area.

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lytag	TEEC	The Rest	Coastal	Corridor
Turbellaria	Tricladida	Rhynchodemidae	<i>Microplana terrestris</i>	a flatworm	None					1
Malacostraca	Isopoda	Asellidae	<i>Asellus aquaticus</i>	a waterlouse	LC					1
Malacostraca	Isopoda	Trichoniscidae	<i>Androniscus dentiger</i>	Rosy Woodlouse	LC			1		
Malacostraca	Isopoda	Trichoniscidae	<i>Haplophthalmus danicus</i>	a woodlouse	LC					1
Malacostraca	Isopoda	Trichoniscidae	<i>Trichoniscus provisorius/pusillus</i>	Common Pygmy Woodlouse	LC			1		1
Malacostraca	Isopoda	Trichoniscidae	<i>Trichoniscus pygmaeus</i>	a woodlouse	LC					1
Malacostraca	Isopoda	Philosciidae	<i>Philoscia muscorum</i>	Common Striped Woodlouse	LC	1	1	1	1	1
Malacostraca	Isopoda	Platyarthridae	<i>Platyarthrus hoffmannseggii</i>	Ant Woodlouse	LC	1		1		1
Malacostraca	Isopoda	Oniscidae	<i>Oniscus asellus</i>	Common Shiny Woodlouse	LC	1	1	1	1	1
Malacostraca	Isopoda	Armadillidiidae	<i>Armadillidium nasatum</i>	a pill-woodlouse	LC		1	1		1
Malacostraca	Isopoda	Armadillidiidae	<i>Armadillidium vulgare</i>	Common Pill-woodlouse	LC		1	1	1	1
Malacostraca	Isopoda	Porcellionidae	<i>Porcellio dilatatus</i>	a woodlouse	LC					1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Malacostraca	Isopoda	Porcellionidae	<i>Porcellio scaber</i>	Common Rough Woodlouse	LC	1	1	1	1	1
Malacostraca	Amphipoda	Gammaridae	<i>Gammarus pulex</i>	an amphipod	None					1
Arachnida	Araneae	Dysderidae	<i>Dysdera crocata</i>	a spider	None			1		1
Arachnida	Araneae	Theridiidae	<i>Episinus angulatus</i>	a spider	None					1
Arachnida	Araneae	Theridiidae	<i>Anelosimus vittatus</i>	a spider	None		1			
Arachnida	Araneae	Theridiidae	<i>Phylloneta sisypbia</i>	a spider	None	1				
Arachnida	Araneae	Theridiidae	<i>Platnickina tincta</i>	a spider	None		1			
Arachnida	Araneae	Theridiidae	<i>Neottiura bimaculata</i>	a spider	None			1		
Arachnida	Araneae	Linyphiidae	<i>Walckenaeria antica</i>	a spider	None			1		
Arachnida	Araneae	Linyphiidae	<i>Hylaphantes graminicola</i>	a spider	None		1			
Arachnida	Araneae	Linyphiidae	<i>Oedothorax fuscus</i>	a spider	None	1				1
Arachnida	Araneae	Linyphiidae	<i>Erigone dentipalpis</i>	a spider	None					1
Arachnida	Araneae	Linyphiidae	<i>Erigone atra</i>	a spider	None					1
Arachnida	Araneae	Linyphiidae	<i>Mermessus trilobatus</i>	a spider	None					1
Arachnida	Araneae	Linyphiidae	<i>Meioneta simplicitarsis</i>	a spider	NS					1
Arachnida	Araneae	Linyphiidae	<i>Bathyphantes gracilis</i>	a spider	None					1
Arachnida	Araneae	Linyphiidae	<i>Tenuiphantes tenuis</i>	a spider	None	1		1		1
Arachnida	Araneae	Linyphiidae	<i>Tenuiphantes mengei</i>	a spider	None					1
Arachnida	Araneae	Linyphiidae	<i>Tenuiphantes tenebricola</i>	a spider	None	1				
Arachnida	Araneae	Tetragnathidae	<i>Pachygnatha degeeri</i>	a spider	None	1				1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status				Corridor
						Lyttag	TEEC	The Rest	Coastal
Arachnida	Araneae	Araneidae	<i>Gibbaranea gibbosa</i>	a spider	None		1		
Arachnida	Araneae	Araneidae	<i>Araneus diadematus</i>	a spider	None			1	1
Arachnida	Araneae	Araneidae	<i>Araneus quadratus</i>	a spider	None			1	
Arachnida	Araneae	Araneidae	<i>Araneus triguttatus</i>	a spider	None		1		
Arachnida	Araneae	Araneidae	<i>Agalenatea redii</i>	a spider	None			1	
Arachnida	Araneae	Araneidae	<i>Neoscona adianta</i>	a spider	None	1			
Arachnida	Araneae	Araneidae	<i>Araniella cucurbitina sens. str.</i>	a spider	None	1			
Arachnida	Araneae	Araneidae	<i>Mangora acalypha</i>	a spider	None	1			
Arachnida	Araneae	Lycosidae	<i>Pardosa palustris</i>	a spider	None	1			1
Arachnida	Araneae	Lycosidae	<i>Pardosa pullata</i>	a spider	None	1		1	1
Arachnida	Araneae	Lycosidae	<i>Pardosa prativaga</i>	a spider	None			1	
Arachnida	Araneae	Lycosidae	<i>Alopecosa pulverulenta</i>	a spider	None	1		1	
Arachnida	Araneae	Lycosidae	<i>Trochosa ruricola</i>	a spider	None	1		1	
Arachnida	Araneae	Lycosidae	<i>Trochosa terricola</i>	a spider	None	1			
Arachnida	Araneae	Lycosidae	<i>Arctosa leopardus</i>	a spider	None	1			
Arachnida	Araneae	Lycosidae	<i>Pirata piraticus</i>	a spider	None				1
Arachnida	Araneae	Pisauridae	<i>Pisaura mirabilis</i>	a spider	None	1	1	1	1
Arachnida	Araneae	Cybaeidae	<i>Argyroneta aquatica</i>	a spider	None				1
Arachnida	Araneae	Hahniidae	<i>Hahnia nava</i>	a spider	None				1
Arachnida	Araneae	Dictynidae	<i>Dictyna uncinata</i>	a spider	None		1		
Arachnida	Araneae	Dictynidae	<i>Dictyna latens</i>	a spider	None			1	

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Arachnida	Araneae	Dictynidae	<i>Nigma walckenaeri</i>	a spider	None					1
Arachnida	Araneae	Clubionidae	<i>Clubiona phragmitis</i>	a spider	None					1
Arachnida	Araneae	Clubionidae	<i>Clubiona comta</i>	a spider	None		1			
Arachnida	Araneae	Clubionidae	<i>Clubiona brevipes</i>	a spider	None		1			
Arachnida	Araneae	Zodariidae	<i>Zodarion italicum</i>	a spider	NS					1
Arachnida	Araneae	Gnaphosidae	<i>Drassodes cupreus</i>	a spider	None		1			
Arachnida	Araneae	Gnaphosidae	<i>Trachyzelotes pedestris</i>	a spider	None					1
Arachnida	Araneae	Gnaphosidae	<i>Drassyllus pusillus</i>	a spider	None		1			
Arachnida	Araneae	Zoridae	<i>Zora spinimana</i>	a spider	None					1
Arachnida	Araneae	Philodromidae	<i>Tibellus oblongus</i>	a spider	None	1				1
Arachnida	Araneae	Thomisidae	<i>Misumena vatia</i>	a spider	None	1				1
Arachnida	Araneae	Thomisidae	<i>Xysticus cristatus</i>	a spider	None	1		1		
Arachnida	Araneae	Thomisidae	<i>Ozyptila sanctuaria</i>	a spider	None			1		
Arachnida	Araneae	Thomisidae	<i>Ozyptila simplex</i>	a spider	None	1				
Arachnida	Araneae	Salticidae	<i>Salticus scenicus</i>	a jumping spider	None	1				
Arachnida	Araneae	Salticidae	<i>Heliophanus cupreus</i>	a jumping spider	None					1
Arachnida	Araneae	Salticidae	<i>Heliophanus flavipes</i>	a jumping spider	None					1
Arachnida	Araneae	Salticidae	<i>Ballus chalybeius</i>	a jumping spider	NS	1	1			
Arachnida	Araneae	Salticidae	<i>Euophrys frontalis</i>	a jumping spider	None			1		
Arachnida	Araneae	Salticidae	<i>Macaroeris nidicolens</i>	a spider	None			1		
Arachnida	Pseudoscorpiones	Chthoniidae	<i>Chthonius tetrachelatus</i>	a pseudoscorpion	None					1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status				Corridor
						Lytag	TEEC	The Rest	Coastal
Arachnida	Opiliones	Phalangiidae	<i>Phalangium opilio</i>	a harvestman	None			1	1
Chilopoda	Geophilomorpha	Geophilidae	<i>Henia vesuviana</i>	a centipede	LC, NS				1
Chilopoda	Geophilomorpha	Geophilidae	<i>Geophilus flavus</i>	a centipede	LC				1
Chilopoda	Lithobiomorpha	Lithobiidae	<i>Lithobius forficatus</i>	a centipede	LC	1	1	1	1
Chilopoda	Lithobiomorpha	Lithobiidae	<i>Lithobius melanops</i>	a centipede	LC			1	
Chilopoda	Lithobiomorpha	Lithobiidae	<i>Lithobius microps</i>	a centipede	LC				1
Chilopoda	Scolopendromorpha	Cryptopsidae	<i>Cryptops anomalans</i>	a centipede	NA				1
Chilopoda	Scolopendromorpha	Cryptopsidae	<i>Cryptops hortensis</i>	a centipede	LC	1	1	1	1
Diplopoda	Glomerida	Glomeridae	<i>Glomeris marginata</i>	Pill Millipede	LC	1	1	1	
Diplopoda	Julida	Blaniulidae	<i>Choneiulus palmatus</i>	a millipede	LC, NS				1
Diplopoda	Julida	Blaniulidae	<i>Blaniulus guttulatus</i>	Spotted Snake-millipede	LC				1
Diplopoda	Julida	Julidae	<i>Tachypodoiulus niger</i>	White-legged Millipede	LC	1		1	
Diplopoda	Julida	Julidae	<i>Cylindroiulus caeruleocinctus</i>	a millipede	LC	1		1	1
Diplopoda	Polydesmida	Polydesmidae	<i>Brachydesmus superus</i>	a flat-backed millipede	LC			1	1
Collembola	Entomobryomorpha	Entomobryidae	<i>Orchesella cincta</i>	a springtail	None			1	1
Insecta	Diplura	Campodeidae	<i>Campodea lubbocki</i>	a two-tailed bristletail	None				1
Insecta	Ephemeroptera	Baetidae	<i>Cloeon dipterum</i>	a mayfly	None				1
Insecta	Odonata	Lestidae	<i>Lestes sponsa</i>	Emerald Damselfly	LC		1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status				Corridor
						Lyttag	TEEC	The Rest	Coastal
Insecta	Odonata	Coenagrionidae	<i>Ischnura elegans</i>	Blue-tailed Damselfly	LC			1	1
Insecta	Odonata	Coenagrionidae	<i>Enallagma cyathigerum</i>	Common Blue Damselfly	LC	1		1	1
Insecta	Odonata	Coenagrionidae	<i>Coenagrion puella</i>	Azure Damselfly	LC	1			1
Insecta	Odonata	Aeshnidae	<i>Aeshna cyanea</i>	Southern Hawker	LC	1			
Insecta	Odonata	Aeshnidae	<i>Aeshna mixta</i>	Migrant Hawker	LC	1			1
Insecta	Odonata	Aeshnidae	<i>Anax imperator</i>	Emperor Dragonfly	LC			1	1
Insecta	Odonata	Libellulidae	<i>Libellula quadrimaculata</i>	Four-spotted Chaser	LC			1	
Insecta	Odonata	Libellulidae	<i>Orthetrum cancellatum</i>	Black-tailed Skimmer	LC			1	
Insecta	Odonata	Libellulidae	<i>Sympetrum striolatum</i>	Common Darter	LC	1		1	1
Insecta	Odonata	Libellulidae	<i>Sympetrum sanguineum</i>	Ruddy Darter	LC	1		1	1
Insecta	Dermoptera	Forficulidae	<i>Forficula auricularia</i>	Common Earwig	LC	1	1	1	1
Insecta	Dermoptera	Forficulidae	<i>Forficula lesnei</i>	Lesne's Earwig	LC, NS	1	1	1	1
Insecta	Orthoptera	Meconematidae	<i>Meconema meridionale</i>	Southern Oak Bush-cricket	NA			1	1
Insecta	Orthoptera	Tettigoniidae	<i>Pholidoptera griseoaptera</i>	Dark Bush-cricket	LC	1	1	1	1
Insecta	Orthoptera	Tettigoniidae	<i>Metrioptera roeselii</i>	Roesel's Bush-cricket	LC	1	1	1	
Insecta	Orthoptera	Conocephalidae	<i>Conocephalus fuscus</i>	Long-winged Conehead	LC	1		1	
Insecta	Orthoptera	Phaneropteridae	<i>Leptophyes punctatissima</i>	Speckled Bush-cricket	LC	1	1	1	

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status		Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Orthoptera	Tetrigidae	<i>Tetrix subulata</i>	Slender Groundhopper	LC		1		1		
Insecta	Orthoptera	Tetrigidae	<i>Tetrix undulata</i>	Common Groundhopper	LC		1		1		
Insecta	Orthoptera	Acrididae	<i>Chorthippus albomarginatus</i>	Lesser Marsh Grasshopper	LC		1		1		1
Insecta	Orthoptera	Acrididae	<i>Chorthippus brunneus</i>	Field Grasshopper	LC		1	1	1		1
Insecta	Orthoptera	Acrididae	<i>Chorthippus parallelus</i>	Meadow Grasshopper	LC		1		1		1
Insecta	Psocoptera	Ectopsocidae	<i>Ectopsocus briggsi</i>	a barkfly	None			1			
Insecta	Psocoptera	Ectopsocidae	<i>Ectopsocus petersi</i>	a barkfly	None			1	1	1	1
Insecta	Psocoptera	Elipsocidae	<i>Propsocus pulchripennis</i>	a barkfly	None					1	
Insecta	Psocoptera	Mesopsocidae	<i>Mesopsocus immunis</i>	a barkfly	None			1			
Insecta	Psocoptera	Peripsocidae	<i>Peripsocus milleri</i>	a barkfly	None		1				
Insecta	Psocoptera	Philotarsidae	<i>Philotarsus parviceps</i>	a barkfly	None		1				
Insecta	Psocoptera	Psocidae	<i>Loensia variegata</i>	a barkfly	None		1		1		
Insecta	Psocoptera	Psocidae	<i>Psococerastis gibbosa</i>	a barkfly	None				1		
Insecta	Psocoptera	Stenopsocidae	<i>Graphopsocus cruciatus</i>	a barkfly	None			1	1		
Insecta	Hemiptera: Sternorrhyncha	Psyllidae	<i>Cacopsylla crataegi</i>	a psyllid	None		1	1	1		
Insecta	Hemiptera: Sternorrhyncha	Psyllidae	<i>Cacopsylla peregrina</i>	a psyllid	None		1	1	1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Hemiptera: Sternorrhyncha	Psyllidae	<i>Psylla alni</i>	Alder Psyllid	None			1		
Insecta	Hemiptera: Sternorrhyncha	Triozidae	<i>Trioza urticae</i>	Nettle Psyllid	None	1	1	1		
Insecta	Hemiptera: Sternorrhyncha	Aphididae	<i>Pemphigus spyrothecae</i>	a gall-forming aphid	None			1		
Insecta	Hemiptera: Auchenorrhyncha	Cercopidae	<i>Aphrophora alni</i>	a froghopper	None	1	1	1		
Insecta	Hemiptera: Auchenorrhyncha	Cercopidae	<i>Philaenus spumarius</i>	a froghopper	None	1	1	1	1	1
Insecta	Hemiptera: Auchenorrhyncha	Cercopidae	<i>Neophilaenus campestris</i>	a froghopper	None	1	1	1		
Insecta	Hemiptera: Auchenorrhyncha	Cercopidae	<i>Neophilaenus exclamacionis</i>	a froghopper	None	1				
Insecta	Hemiptera: Auchenorrhyncha	Cercopidae	<i>Neophilaenus lineatus</i>	a froghopper	None	1	1			
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Megophthalmus scanicus</i>	a leafhopper	None	1		1		
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Populicerus albicans</i>	a leafhopper	None			1		
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Anaceratagallia ribauti</i>	a leafhopper	None	1	1	1		1
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Anoscopus albifrons</i>	a leafhopper	None			1		
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Aphrodes makarovi</i>	a leafhopper	None	1	1	1		1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Doratura stylata</i>	a leafhopper	None	1		1		
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Deltocephalus pulicaris</i>	a leafhopper	None			1		
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Arthaldeus pascuellus</i>	a leafhopper	None	1		1	1	
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Psammotettix cephalotes</i>	a leafhopper	None	1		1	1	
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Psammotettix confinis</i>	a leafhopper	None	1		1	1	
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Psammotettix helvolus</i>	a leafhopper	None	1				
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Conosanus obsoletus</i>	a leafhopper	None			1		
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Euscelis incisus</i>	a leafhopper	None		1	1		
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Macustus grisescens</i>	a leafhopper	None	1				
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Mocydia crocea</i>	a leafhopper	None	1	1	1		1
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Mocydiopsis attenuata</i>	a leafhopper	None	1		1		
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Macrosteles viridigriseus</i>	a leafhopper	None					1
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Balclutha punctata</i>	a leafhopper	None	1				

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Liguropia juniperi</i>	a leafhopper	None	1				
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Empoasca decipiens</i>	a leafhopper	None	1	1			
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Eurhadina concinna</i>	a leafhopper	None			1		
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Eupteryx atropunctata</i>	a leafhopper	None					1
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Eupteryx melissae</i>	a leafhopper	None					1
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Eupteryx notata</i>	a leafhopper	None	1				
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Eupteryx urticae</i>	a leafhopper	None	1	1			
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Eupterycyba jucunda</i>	a leafhopper	None			1		
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Edwardsiana crataegi</i>	a leafhopper	None	1	1			
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Zyginidia scutellaris</i>	a leafhopper	None	1				1
Insecta	Hemiptera: Auchenorrhyncha	Cicadellidae	<i>Zygina hyperici</i>	a leafhopper	None		1			
Insecta	Hemiptera: Auchenorrhyncha	Cixiidae	<i>Pentastiridius leporinus</i>	a lacehopper	Nationally Scarce (Nb)					1
Insecta	Hemiptera: Auchenorrhyncha	Cixiidae	<i>Tachycixius pilosus</i>	a lacehopper	None	1	1	1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Hemiptera: Auchenorrhyncha	Cixiidae	<i>Cixius nervosus</i>	a planthopper	None	1	1			
Insecta	Hemiptera: Auchenorrhyncha	Delphacidae	<i>Asiraca clavicornis</i>	a planthopper	Nationally Scarce (Nb)		1	1	1	1
Insecta	Hemiptera: Auchenorrhyncha	Delphacidae	<i>Kelisia guttulifera</i>	a planthopper	None			1		
Insecta	Hemiptera: Auchenorrhyncha	Delphacidae	<i>Stenocranus minutus</i>	a planthopper	None	1	1	1		
Insecta	Hemiptera: Auchenorrhyncha	Delphacidae	<i>Chlorionia glaucescens</i>	a planthopper	None				1	
Insecta	Hemiptera: Auchenorrhyncha	Delphacidae	<i>Chlorionia unicolor</i>	a planthopper	None					1
Insecta	Hemiptera: Auchenorrhyncha	Delphacidae	<i>Delphax pulchellus</i>	a planthopper	None	1		1		
Insecta	Hemiptera: Auchenorrhyncha	Delphacidae	<i>Eurysa lineata</i>	a planthopper	None	1		1		
Insecta	Hemiptera: Auchenorrhyncha	Delphacidae	<i>Eurybregma nigrolineata</i>	a planthopper	None				1	
Insecta	Hemiptera: Auchenorrhyncha	Delphacidae	<i>Criomorphus albomarginatus</i>	a planthopper	None			1		
Insecta	Hemiptera: Auchenorrhyncha	Delphacidae	<i>Dicranotropis hamata</i>	a planthopper	None			1		
Insecta	Hemiptera: Auchenorrhyncha	Delphacidae	<i>Hyledelphax elegantulus</i>	a planthopper	None	1				
Insecta	Hemiptera: Auchenorrhyncha	Delphacidae	<i>Javesella dubia</i>	a planthopper	None	1	1	1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Hemiptera: Auchenorrhyncha	Delphacidae	<i>Javesella pellucida</i>	a planthopper	None	1	1	1		1
Insecta	Hemiptera: Auchenorrhyncha	Delphacidae	<i>Ribautodelphax imitans</i>	a planthopper	RDBK, S41	1				
Insecta	Hemiptera: Heteroptera	Nepidae	<i>Nepa cinerea</i>	Water Scorpion	LC					1
Insecta	Hemiptera: Heteroptera	Corixidae	<i>Cymatia coleoptrata</i>	an aquatic bug	LC			1		1
Insecta	Hemiptera: Heteroptera	Corixidae	<i>Corixa panzeri</i>	an aquatic bug	LC					1
Insecta	Hemiptera: Heteroptera	Corixidae	<i>Corixa punctata</i>	an aquatic bug	LC					1
Insecta	Hemiptera: Heteroptera	Corixidae	<i>Hesperocorixa linnaei</i>	an aquatic bug	LC					1
Insecta	Hemiptera: Heteroptera	Corixidae	<i>Hesperocorixa sahlbergi</i>	an aquatic bug	LC					1
Insecta	Hemiptera: Heteroptera	Corixidae	<i>Sigara selecta</i>	an aquatic bug	LC, NS					1
Insecta	Hemiptera: Heteroptera	Corixidae	<i>Sigara dorsalis</i>	an aquatic bug	LC					1
Insecta	Hemiptera: Heteroptera	Corixidae	<i>Sigara lateralis</i>	an aquatic bug	LC					1
Insecta	Hemiptera: Heteroptera	Naucoridae	<i>Ilyocoris cimicoides</i>	Saucer Bug	LC		1	1		1
Insecta	Hemiptera: Heteroptera	Notonectidae	<i>Notonecta glauca</i>	Common Backswimmer	LC					1
Insecta	Hemiptera: Heteroptera	Notonectidae	<i>Notonecta viridis</i>	a backswimmer	LC			1		
Insecta	Hemiptera: Heteroptera	Pleidae	<i>Plea minutissima</i>	a backswimmer	LC			1		1
Insecta	Hemiptera: Heteroptera	Hydrometridae	<i>Hydrometra stagnorum</i>	Water Measurer	LC	1		1		1
Insecta	Hemiptera: Heteroptera	Gerridae	<i>Gerris lateralis</i>	a pond-skater	LC					1
Insecta	Hemiptera: Heteroptera	Saldidae	<i>Chartoscirta cincta</i>	a shorebug	LC	1	1			1
Insecta	Hemiptera: Heteroptera	Saldidae	<i>Saldula opacula</i>	a shore-bug	LC, NS			1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status				Corridor
						Lytag	TEEC	The Rest	Coastal
Insecta	Hemiptera: Heteroptera	Saldidae	<i>Saldula orthochila</i>	a shore-bug	LC, NS				1
Insecta	Hemiptera: Heteroptera	Saldidae	<i>Saldula pallipes</i>	a shore-bug	LC, NS			1	
Insecta	Hemiptera: Heteroptera	Saldidae	<i>Saldula saltatoria</i>	a shore-bug	LC	1	1	1	1
Insecta	Hemiptera: Heteroptera	Tingidae	<i>Acalypta parvula</i>	a lacebug	None	1	1	1	1
Insecta	Hemiptera: Heteroptera	Tingidae	<i>Kalama tricornis</i>	a lacebug	None		1	1	1
Insecta	Hemiptera: Heteroptera	Tingidae	<i>Physatocheila dumetorum</i>	a lacebug	None	1	1	1	1
Insecta	Hemiptera: Heteroptera	Tingidae	<i>Tingis ampliata</i>	a lacebug	None	1	1	1	1
Insecta	Hemiptera: Heteroptera	Tingidae	<i>Tingis cardui</i>	a lacebug	None			1	1
Insecta	Hemiptera: Heteroptera	Miridae	<i>Campyloneura virgula</i>	a mirid bug	None			1	
Insecta	Hemiptera: Heteroptera	Miridae	<i>Dicyphus globulifer</i>	a mirid bug	None	1	1		1
Insecta	Hemiptera: Heteroptera	Miridae	<i>Dicyphus epilobii</i>	a mirid bug	None			1	
Insecta	Hemiptera: Heteroptera	Miridae	<i>Deraeocoris flavilinea</i>	a mirid bug	None			1	
Insecta	Hemiptera: Heteroptera	Miridae	<i>Deraeocoris lutescens</i>	a mirid bug	None				1
Insecta	Hemiptera: Heteroptera	Miridae	<i>Adelphocoris lineolatus</i>	a mirid bug	None	1	1		
Insecta	Hemiptera: Heteroptera	Miridae	<i>Closterotomus norwegicus</i>	a mirid bug	None				1
Insecta	Hemiptera: Heteroptera	Miridae	<i>Capsus ater</i>	a mirid bug	None				1
Insecta	Hemiptera: Heteroptera	Miridae	<i>Liocoris tripustulatus</i>	a mirid bug	None	1	1	1	1
Insecta	Hemiptera: Heteroptera	Miridae	<i>Lygus maritimus</i>	a mirid bug	None			1	1
Insecta	Hemiptera: Heteroptera	Miridae	<i>Lygus pratensis</i>	a mirid bug	RDB3	1	1	1	1
Insecta	Hemiptera: Heteroptera	Miridae	<i>Lygus rugulipennis</i>	a mirid bug	None	1	1	1	1
Insecta	Hemiptera: Heteroptera	Miridae	<i>Miris striatus</i>	a mirid bug	None	1	1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Hemiptera: Heteroptera	Miridae	<i>Pantilius tunicatus</i>	a mirid bug	None	1		1		
Insecta	Hemiptera: Heteroptera	Miridae	<i>Phytocoris varipes</i>	a mirid bug	None	1	1	1	1	
Insecta	Hemiptera: Heteroptera	Miridae	<i>Pinalitus cervinus</i>	a mirid bug	None	1	1	1		
Insecta	Hemiptera: Heteroptera	Miridae	<i>Stenotus binotatus</i>	a mirid bug	None	1	1	1		
Insecta	Hemiptera: Heteroptera	Miridae	<i>Leptopterna ferrugata</i>	a mirid bug	None			1		
Insecta	Hemiptera: Heteroptera	Miridae	<i>Megaloceroea recticornis</i>	a mirid bug	None	1				
Insecta	Hemiptera: Heteroptera	Miridae	<i>Notostira elongata</i>	a mirid bug	None	1	1	1	1	
Insecta	Hemiptera: Heteroptera	Miridae	<i>Pithanus maerkelii</i>	a mirid bug	None			1		1
Insecta	Hemiptera: Heteroptera	Miridae	<i>Stenodema calcarata</i>	a mirid bug	None	1	1	1		1
Insecta	Hemiptera: Heteroptera	Miridae	<i>Stenodema laevigata</i>	a mirid bug	None	1	1	1		1
Insecta	Hemiptera: Heteroptera	Miridae	<i>Orthocephalus saltator</i>	a mirid bug	None			1		
Insecta	Hemiptera: Heteroptera	Miridae	<i>Heterotoma planicornis</i>	a mirid bug	None	1		1		
Insecta	Hemiptera: Heteroptera	Miridae	<i>Orthotylus flavosparsus</i>	a mirid bug	None				1	
Insecta	Hemiptera: Heteroptera	Miridae	<i>Orthotylus moncreaffi</i>	a mirid bug	None				1	
Insecta	Hemiptera: Heteroptera	Miridae	<i>Pilophorus clavatus</i>	a mirid bug	None	1				
Insecta	Hemiptera: Heteroptera	Miridae	<i>Amblytylus nasutus</i>	a mirid bug	None					1
Insecta	Hemiptera: Heteroptera	Miridae	<i>Chlamydatus saltitans</i>	a mirid bug	None			1		1
Insecta	Hemiptera: Heteroptera	Miridae	<i>Chlamydatus pullus</i>	a mirid bug	None			1		
Insecta	Hemiptera: Heteroptera	Miridae	<i>Chlamydatus evanescens</i>	a mirid bug	RDB3	1				
Insecta	Hemiptera: Heteroptera	Miridae	<i>Macrotylus horvathi</i>	a mirid bug	None			1		
Insecta	Hemiptera: Heteroptera	Miridae	<i>Plagiognathus arbustorum</i>	a mirid bug	None	1	1	1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Hemiptera: Heteroptera	Miridae	<i>Plagiognathus chrysanthemi</i>	a mirid bug	None			1		
Insecta	Hemiptera: Heteroptera	Miridae	<i>Sthenarus rotermundi</i>	a mirid bug	None			1		
Insecta	Hemiptera: Heteroptera	Nabidae	<i>Himacerus mirmicoides</i>	Ant Damsel-bug	None	1	1	1	1	
Insecta	Hemiptera: Heteroptera	Nabidae	<i>Himacerus apterus</i>	Tree Damsel-bug	None	1	1			1
Insecta	Hemiptera: Heteroptera	Nabidae	<i>Nabis limbatus</i>	Marsh Damsel-bug	None	1		1		
Insecta	Hemiptera: Heteroptera	Nabidae	<i>Nabis ferus</i>	Field Damsel-bug	None			1		1
Insecta	Hemiptera: Heteroptera	Nabidae	<i>Nabis rugosus</i>	Common Damsel-bug	None	1		1		
Insecta	Hemiptera: Heteroptera	Anthocoridae	<i>Anthocoris nemoralis</i>	a flower bug	None	1	1	1		1
Insecta	Hemiptera: Heteroptera	Anthocoridae	<i>Anthocoris nemorum</i>	a flower bug	None	1	1	1		
Insecta	Hemiptera: Heteroptera	Anthocoridae	<i>Temnostethus pusillus</i>	a flower bug	None	1				
Insecta	Hemiptera: Heteroptera	Anthocoridae	<i>Orius laticollis</i>	a flower bug	None	1				
Insecta	Hemiptera: Heteroptera	Anthocoridae	<i>Orius majusculus</i>	a flower bug	None		1			1
Insecta	Hemiptera: Heteroptera	Anthocoridae	<i>Orius vicinus</i>	a flower bug	None	1	1	1		1
Insecta	Hemiptera: Heteroptera	Anthocoridae	<i>Orius laevigatus</i>	a flower bug	None					1
Insecta	Hemiptera: Heteroptera	Anthocoridae	<i>Orius niger</i>	a flower bug	None			1		1
Insecta	Hemiptera: Heteroptera	Anthocoridae	<i>Buchananiella continua</i>	a flower bug	None		1			1
Insecta	Hemiptera: Heteroptera	Anthocoridae	<i>Cardiastethus fasciiventris</i>	a flower bug	None	1	1	1		
Insecta	Hemiptera: Heteroptera	Aradidae	<i>Aradus depressus</i>	a flatbug	None		1			
Insecta	Hemiptera: Heteroptera	Aradidae	<i>Aneurus avenius</i>	a flatbug	None			1		
Insecta	Hemiptera: Heteroptera	Piesmatidae	<i>Parapiesma quadratum</i>	a bug	None			1	1	

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Hemiptera: Heteroptera	Berytidae	<i>Berytinus hirticornis</i>	a stiltbug	Nationally Scarce (Nb)	1		1		1
Insecta	Hemiptera: Heteroptera	Berytidae	<i>Berytinus minor</i>	a stiltbug	None	1		1		
Insecta	Hemiptera: Heteroptera	Berytidae	<i>Berytinus montivagus</i>	a stiltbug	None		1	1		
Insecta	Hemiptera: Heteroptera	Berytidae	<i>Berytinus signoreti</i>	a stiltbug	None	1		1		
Insecta	Hemiptera: Heteroptera	Lygaeidae	<i>Nysius huttoni</i>	a ground-bug	None	1		1		1
Insecta	Hemiptera: Heteroptera	Lygaeidae	<i>Nysius senecionis</i>	a ground-bug	None			1		1
Insecta	Hemiptera: Heteroptera	Lygaeidae	<i>Kleidocerys resedae</i>	a ground-bug	None	1	1	1		
Insecta	Hemiptera: Heteroptera	Lygaeidae	<i>Ischnodemus sabuleti</i>	European Chinch- bug	None	1	1	1	1	
Insecta	Hemiptera: Heteroptera	Lygaeidae	<i>Chilacis typhae</i>	a ground-bug	None		1	1		1
Insecta	Hemiptera: Heteroptera	Lygaeidae	<i>Heterogaster urticae</i>	a ground-bug	None	1	1	1		1
Insecta	Hemiptera: Heteroptera	Lygaeidae	<i>Stygnocoris fuligineus</i>	a ground-bug	None		1		1	1
Insecta	Hemiptera: Heteroptera	Lygaeidae	<i>Drymus sylvaticus</i>	a ground-bug	None	1	1	1		
Insecta	Hemiptera: Heteroptera	Lygaeidae	<i>Scolopostethus affinis</i>	a ground-bug	None	1	1	1	1	1
Insecta	Hemiptera: Heteroptera	Lygaeidae	<i>Scolopostethus grandis</i>	a ground-bug	None			1		
Insecta	Hemiptera: Heteroptera	Lygaeidae	<i>Scolopostethus thomsoni</i>	a ground-bug	None	1	1	1		
Insecta	Hemiptera: Heteroptera	Lygaeidae	<i>Tropistethus holosericeus</i>	a ground-bug	Nationally Scarce (Nb)		1			
Insecta	Hemiptera: Heteroptera	Lygaeidae	<i>Megalonotus antennatus</i>	a ground-bug	Nationally Scarce (Nb)			1		
Insecta	Hemiptera: Heteroptera	Lygaeidae	<i>Megalonotus chiragra</i>	a ground-bug	None	1		1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Hemiptera: Heteroptera	Lygaeidae	<i>Megalonotus emarginatus</i>	a ground-bug	None			1		1
Insecta	Hemiptera: Heteroptera	Lygaeidae	<i>Peritrechus geniculatus</i>	a ground-bug	None	1		1		
Insecta	Hemiptera: Heteroptera	Lygaeidae	<i>Peritrechus lundii</i>	a ground-bug	None			1		
Insecta	Hemiptera: Heteroptera	Lygaeidae	<i>Raglius alboacuminatus</i>	a ground-bug	Nationally Scarce (Nb)		1		1	
Insecta	Hemiptera: Heteroptera	Coreidae	<i>Coreus marginatus</i>	Dock Bug	LC	1	1	1		1
Insecta	Hemiptera: Heteroptera	Coreidae	<i>Gonocerus acuteangulatus</i>	Box Bug	LC	1	1	1	1	
Insecta	Hemiptera: Heteroptera	Coreidae	<i>Syromastus rhombeus</i>	Rhombic Leatherbug	LC	1	1	1		
Insecta	Hemiptera: Heteroptera	Coreidae	<i>Bathysolen nubilus</i>	Cryptic Leatherbug	LC			1		
Insecta	Hemiptera: Heteroptera	Coreidae	<i>Ceraleptus lividus</i>	Slender-horned Leatherbug	LC, NS	1				
Insecta	Hemiptera: Heteroptera	Coreidae	<i>Coriomeris denticulatus</i>	Denticulate Leatherbug	LC	1		1		1
Insecta	Hemiptera: Heteroptera	Rhopalidae	<i>Corizus hyoscyami</i>	a rhopalid bug	LC					1
Insecta	Hemiptera: Heteroptera	Rhopalidae	<i>Rhopalus subrufus</i>	a rhopalid bug	LC	1		1		1
Insecta	Hemiptera: Heteroptera	Rhopalidae	<i>Myrmus miriformis</i>	a rhopalid bug	LC	1	1			
Insecta	Hemiptera: Heteroptera	Rhopalidae	<i>Stictopleurus punctatonervosus</i>	a rhopalid bug	NA	1		1		
Insecta	Hemiptera: Heteroptera	Cydniidae	<i>Legnotus limbosus</i>	Bordered Shieldbug	LC					1
Insecta	Hemiptera: Heteroptera	Scutelleridae	<i>Eurygaster maura</i>	Scarce Tortoise Shieldbug	LC, NS	1				
Insecta	Hemiptera: Heteroptera	Scutelleridae	<i>Eurygaster testudinaria</i>	Tortoise Shieldbug	LC	1				
Insecta	Hemiptera: Heteroptera	Pentatomidae	<i>Podops inuncta</i>	Knobbed Shieldbug	LC			1	1	

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Hemiptera: Heteroptera	Pentatomidae	<i>Aelia acuminata</i>	Bishop's Mitre Shieldbug	LC	1		1		1
Insecta	Hemiptera: Heteroptera	Pentatomidae	<i>Dolycoris baccarum</i>	Hairy Shieldbug	LC	1	1	1		1
Insecta	Hemiptera: Heteroptera	Pentatomidae	<i>Eysarcoris venustissimus</i>	Woundwort Shieldbug	LC	1	1	1		
Insecta	Hemiptera: Heteroptera	Pentatomidae	<i>Neottiglossa pusilla</i>	Small Grass Shieldbug	LC	1	1	1		
Insecta	Hemiptera: Heteroptera	Pentatomidae	<i>Palomena prasina</i>	Common Green Shieldbug	LC	1	1	1		1
Insecta	Hemiptera: Heteroptera	Pentatomidae	<i>Pentatoma rufipes</i>	Red-legged Shieldbug	LC			1		
Insecta	Hemiptera: Heteroptera	Pentatomidae	<i>Eurydema oleracea</i>	Crucifer Shieldbug	LC	1	1	1	1	1
Insecta	Hemiptera: Heteroptera	Pentatomidae	<i>Rhaphigaster nebulosa</i>	Mottled Shieldbug	NA					1
Insecta	Hemiptera: Heteroptera	Acanthosomatidae	<i>Acanthosoma haemorrhoidale</i>	Hawthorn Shieldbug	LC			1		1
Insecta	Hemiptera: Heteroptera	Acanthosomatidae	<i>Cyphostethus tristriatus</i>	Juniper Shieldbug	LC	1				
Insecta	Coleoptera	Halaplidae	<i>Haliphus lineatocollis</i>	a crawling water beetle	LC			1		1
Insecta	Coleoptera	Halaplidae	<i>Haliphus ruficollis</i>	a crawling water beetle	LC		1	1		1
Insecta	Coleoptera	Paelobiidae	<i>Hygrobia hermanni</i>	The Squeak Beetle	LC					1
Insecta	Coleoptera	Noteridae	<i>Noterus clavicornis</i>	The Larger Noterus	LC		1	1		1
Insecta	Coleoptera	Dytiscidae	<i>Laccophilus minutus</i>	a diving beetle	LC					1
Insecta	Coleoptera	Dytiscidae	<i>Hyphydrus ovatus</i>	The Cherrystone Beetle	LC			1		1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Dytiscidae	<i>Hydroglyphus geminus</i>	a diving beetle	LC			1		
Insecta	Coleoptera	Dytiscidae	<i>Hygrotus inaequalis</i>	a diving beetle	LC		1	1	1	
Insecta	Coleoptera	Dytiscidae	<i>Hygrotus impressopunctatus</i>	a diving beetle	LC				1	
Insecta	Coleoptera	Dytiscidae	<i>Hydroporus angustatus</i>	a diving beetle	LC				1	
Insecta	Coleoptera	Dytiscidae	<i>Hydroporus palustris</i>	a diving beetle	LC				1	
Insecta	Coleoptera	Dytiscidae	<i>Agabus bipustulatus</i>	a diving beetle	LC				1	
Insecta	Coleoptera	Dytiscidae	<i>Rhantus frontalis</i>	a diving beetle	Nationally Scarce				1	
Insecta	Coleoptera	Dytiscidae	<i>Rhantus suturalis</i>	The Supertramp	LC		1	1	1	
Insecta	Coleoptera	Dytiscidae	<i>Colymbetes fuscus</i>	a diving beetle	LC				1	
Insecta	Coleoptera	Dytiscidae	<i>Dytiscus circumflexus</i>	a diving beetle	LC				1	
Insecta	Coleoptera	Carabidae	<i>Leistus spinibarbis</i>	a ground beetle	LC				1	
Insecta	Coleoptera	Carabidae	<i>Leistus fulvibarbis</i>	a ground beetle	LC				1	
Insecta	Coleoptera	Carabidae	<i>Leistus ferrugineus</i>	a ground beetle	LC				1	
Insecta	Coleoptera	Carabidae	<i>Nebria brevicollis</i>	a ground beetle	LC	1	1	1	1	
Insecta	Coleoptera	Carabidae	<i>Nebria salina</i>	a ground beetle	LC		1			
Insecta	Coleoptera	Carabidae	<i>Notiophilus biguttatus</i>	a ground beetle	LC			1		
Insecta	Coleoptera	Carabidae	<i>Notiophilus rufipes</i>	a ground beetle	LC			1		
Insecta	Coleoptera	Carabidae	<i>Notiophilus substriatus</i>	a ground beetle	LC			1	1	
Insecta	Coleoptera	Carabidae	<i>Cicindela campestris</i>	Green Tiger-beetle	LC	1	1			
Insecta	Coleoptera	Carabidae	<i>Dyschirius aeneus</i>	a ground beetle	LC			1		
Insecta	Coleoptera	Carabidae	<i>Trechus quadristriatus</i>	a ground beetle	LC					1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Carabidae	<i>Bembidion guttula</i>	a ground beetle	LC					1
Insecta	Coleoptera	Carabidae	<i>Bembidion lunulatum</i>	a ground beetle	LC		1	1		1
Insecta	Coleoptera	Carabidae	<i>Bembidion lampros</i>	a ground beetle	LC			1		
Insecta	Coleoptera	Carabidae	<i>Bembidion properans</i>	a ground beetle	LC	1		1		
Insecta	Coleoptera	Carabidae	<i>Bembidion varium</i>	a ground beetle	LC			1		
Insecta	Coleoptera	Carabidae	<i>Bembidion femoratum</i>	a ground beetle	LC			1		
Insecta	Coleoptera	Carabidae	<i>Bembidion tetricolum</i>	a ground beetle	LC			1		
Insecta	Coleoptera	Carabidae	<i>Bembidion illigeri</i>	a ground beetle	LC			1		1
Insecta	Coleoptera	Carabidae	<i>Bembidion assimile</i>	a ground beetle	LC		1	1		1
Insecta	Coleoptera	Carabidae	<i>Bembidion fumigatum</i>	a ground beetle	LC, NS		1			
Insecta	Coleoptera	Carabidae	<i>Bembidion minimum</i>	a ground beetle	LC			1	1	
Insecta	Coleoptera	Carabidae	<i>Bembidion articulatum</i>	a ground beetle	LC			1		
Insecta	Coleoptera	Carabidae	<i>Tachys bistriatus</i>	a ground beetle	LC, NS			1		
Insecta	Coleoptera	Carabidae	<i>Elaphropus parvulus</i>	a ground beetle	LC, NS			1		
Insecta	Coleoptera	Carabidae	<i>Pterostichus madidus</i>	a ground beetle	LC		1	1		1
Insecta	Coleoptera	Carabidae	<i>Pterostichus macer</i>	a ground beetle	LC			1		1
Insecta	Coleoptera	Carabidae	<i>Pterostichus melanarius</i>	a ground beetle	LC		1	1		1
Insecta	Coleoptera	Carabidae	<i>Pterostichus nigrita/rhaeticus</i>	a ground beetle	LC/ LC					1
Insecta	Coleoptera	Carabidae	<i>Calathus ambiguus</i>	a ground beetle	LC, NS			1		
Insecta	Coleoptera	Carabidae	<i>Calathus cinctus</i>	a ground beetle	LC		1	1		
Insecta	Coleoptera	Carabidae	<i>Calathus fuscipes</i>	a ground beetle	LC					1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Carabidae	<i>Calathus melanocephalus</i>	a ground beetle	LC	1	1			
Insecta	Coleoptera	Carabidae	<i>Olisthopus rotundatus</i>	a ground beetle	LC	1				
Insecta	Coleoptera	Carabidae	<i>Anchomenus dorsalis</i>	a ground beetle	LC			1		1
Insecta	Coleoptera	Carabidae	<i>Agonum thoreyi</i>	a ground beetle	LC		1			
Insecta	Coleoptera	Carabidae	<i>Amara aenea</i>	a ground beetle	LC		1	1		1
Insecta	Coleoptera	Carabidae	<i>Amara convexior</i>	a ground beetle	LC	1				1
Insecta	Coleoptera	Carabidae	<i>Amara eurynota</i>	a ground beetle	LC					1
Insecta	Coleoptera	Carabidae	<i>Amara familiaris</i>	a ground beetle	LC	1				1
Insecta	Coleoptera	Carabidae	<i>Amara ovata</i>	a ground beetle	LC					1
Insecta	Coleoptera	Carabidae	<i>Amara tibialis</i>	a ground beetle	LC		1	1		1
Insecta	Coleoptera	Carabidae	<i>Curtonotus aulicus</i>	a ground beetle	LC			1		
Insecta	Coleoptera	Carabidae	<i>Curtonotus convexusculus</i>	a ground beetle	LC			1		
Insecta	Coleoptera	Carabidae	<i>Harpalus affinis</i>	a ground beetle	LC		1	1		1
Insecta	Coleoptera	Carabidae	<i>Harpalus attenuatus</i>	a ground beetle	LC, NS			1		
Insecta	Coleoptera	Carabidae	<i>Harpalus rubripes</i>	a ground beetle	LC			1		
Insecta	Coleoptera	Carabidae	<i>Harpalus tardus</i>	a ground beetle	LC					1
Insecta	Coleoptera	Carabidae	<i>Harpalus rufipes</i>	a ground beetle	LC		1	1		1
Insecta	Coleoptera	Carabidae	<i>Ophonus ardosiacus</i>	a ground beetle	LC					1
Insecta	Coleoptera	Carabidae	<i>Ophonus azureus</i>	a ground beetle	LC, NS			1		
Insecta	Coleoptera	Carabidae	<i>Ophonus rufibarbis</i>	a ground beetle	LC					1
Insecta	Coleoptera	Carabidae	<i>Stenolophus mixtus</i>	a ground beetle	LC		1			

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status			TEEC	Lyttag	The Rest	Coastal	Corridor
Insecta	Coleoptera	Carabidae	<i>Stenolophus teutonus</i>	a ground beetle	LC, NS					1		1
Insecta	Coleoptera	Carabidae	<i>Acupalpus dubius</i>	a ground beetle	LC			1	1		1	
Insecta	Coleoptera	Carabidae	<i>Badister bullatus</i>	a ground beetle	LC						1	
Insecta	Coleoptera	Carabidae	<i>Chlaenius vestitus</i>	a ground beetle	LC					1		
Insecta	Coleoptera	Carabidae	<i>Demetrias imperialis</i>	a ground beetle	LC		1	1	1			
Insecta	Coleoptera	Carabidae	<i>Demetrias atricapillus</i>	a ground beetle	LC		1		1	1	1	
Insecta	Coleoptera	Carabidae	<i>Paradromius linearis</i>	a ground beetle	LC		1	1	1	1	1	
Insecta	Coleoptera	Carabidae	<i>Dromius meridionalis</i>	a ground beetle	LC			1				
Insecta	Coleoptera	Carabidae	<i>Philarhizus melanocephalus</i>	a ground beetle	LC					1	1	1
Insecta	Coleoptera	Carabidae	<i>Syntomus foveatus</i>	a ground beetle	LC		1		1	1	1	
Insecta	Coleoptera	Carabidae	<i>Syntomus obscuroguttatus</i>	a ground beetle	LC						1	
Insecta	Coleoptera	Carabidae	<i>Syntomus truncatellus</i>	a ground beetle	LC, NS					1		
Insecta	Coleoptera	Carabidae	<i>Microlestes maurus</i>	a ground beetle	LC					1		1
Insecta	Coleoptera	Carabidae	<i>Microlestes minutulus</i>	a ground beetle	LC					1		1
Insecta	Coleoptera	Carabidae	<i>Brachinus crepitans</i>	Bombardier Beetle	LC, NS					1	1	1
Insecta	Coleoptera	Helophoridae	<i>Helophorus porculus</i>	Turnip Mud Beetle	LC					1		
Insecta	Coleoptera	Helophoridae	<i>Helophorus rufipes</i>	a beetle	LC					1		
Insecta	Coleoptera	Helophoridae	<i>Helophorus brevipalpis</i>	an aquatic beetle	LC							1
Insecta	Coleoptera	Hydrophilidae	<i>Hydrobius fuscipes sens. lat.</i>	an aquatic beetle	LC					1		1
Insecta	Coleoptera	Hydrophilidae	<i>Anacaena bipustulata</i>	an aquatic beetle	LC		1	1				
Insecta	Coleoptera	Hydrophilidae	<i>Anacaena globulus</i>	an aquatic beetle	LC				1			

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status			TEEC	Lyttag	The Rest	Coastal	Corridor
Insecta	Coleoptera	Hydrophilidae	<i>Anacaena limbata</i>	an aquatic beetle	LC					1		1
Insecta	Coleoptera	Hydrophilidae	<i>Laccobius bipunctatus</i>	an aquatic beetle	LC							1
Insecta	Coleoptera	Hydrophilidae	<i>Helochares lividus</i>	an aquatic beetle	LC				1	1		1
Insecta	Coleoptera	Hydrophilidae	<i>Sphaeridium bipustulatum</i>	a beetle	None							1
Insecta	Coleoptera	Hydrophilidae	<i>Sphaeridium marginatum</i>	a beetle	None							1
Insecta	Coleoptera	Hydrophilidae	<i>Cercyon nigriceps</i>	a beetle	Nationally Scarce							1
Insecta	Coleoptera	Hydrophilidae	<i>Cercyon haemorrhoidalis</i>	a beetle	None							1
Insecta	Coleoptera	Hydrophilidae	<i>Cercyon impressus</i>	a beetle	None							1
Insecta	Coleoptera	Hydrophilidae	<i>Cercyon melanocephalus</i>	a beetle	None							1
Insecta	Coleoptera	Hydrophilidae	<i>Cercyon obsoletus</i>	a beetle	Nationally Scarce							1
Insecta	Coleoptera	Hydrophilidae	<i>Cercyon pygmaeus</i>	a beetle	None							1
Insecta	Coleoptera	Hydrophilidae	<i>Cercyon quisquilius</i>	a beetle	None							1
Insecta	Coleoptera	Hydrophilidae	<i>Cercyon sternalis</i>	an aquatic beetle	LC			1				1
Insecta	Coleoptera	Hydrophilidae	<i>Megasternum concinnum</i>	a beetle	None	1	1					1
Insecta	Coleoptera	Hydrophilidae	<i>Cryptopleurum minutum</i>	a beetle	None							1
Insecta	Coleoptera	Histeridae	<i>Saprinus aeneus</i>	a beetle	LC, NS							1
Insecta	Coleoptera	Histeridae	<i>Kissister minimus</i>	a beetle	LC		1	1				1
Insecta	Coleoptera	Histeridae	<i>Onthophilus striatus</i>	a beetle	LC							1
Insecta	Coleoptera	Histeridae	<i>Marginotus purpurascens</i>	a beetle	LC			1				1
Insecta	Coleoptera	Histeridae	<i>Hister unicolor</i>	a beetle	LC							1
Insecta	Coleoptera	Histeridae	<i>Atholus duodecimstriatus</i>	a beetle	LC							1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Hydraenidae	<i>Hydraena testacea</i>	an aquatic beetle	LC		1			
Insecta	Coleoptera	Hydraenidae	<i>Ochthebius dilatatus</i>	an aquatic beetle	LC		1			
Insecta	Coleoptera	Hydraenidae	<i>Ochthebius minimus</i>	an aquatic beetle	LC		1	1		
Insecta	Coleoptera	Hydraenidae	<i>Aulacochthebius exaratus</i>	an aquatic beetle	NT		1			
Insecta	Coleoptera	Hydraenidae	<i>Ochthebius viridis</i>	an aquatic beetle	Nationally Scarce		1			
Insecta	Coleoptera	Ptiliidae	<i>Ptenidium pusillum</i>	a featherwing beetle	None					1
Insecta	Coleoptera	Ptiliidae	<i>Acrotrichis sericans</i>	a featherwing beetle	None					1
Insecta	Coleoptera	Leiodidae	<i>Agathidium marginatum</i>	a beetle	Nationally Scarce		1			
Insecta	Coleoptera	Leiodidae	<i>Leiodes rufipennis</i>	a beetle	None			1		
Insecta	Coleoptera	Leiodidae	<i>Ptomaphagus subvillosus</i>	a beetle	None		1	1		
Insecta	Coleoptera	Silphidae	<i>Silpha tristis</i>	a beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Lesteva sicula</i>	a rove-beetle	None				1	1
Insecta	Coleoptera	Staphylinidae	<i>Acrolocha sulcula</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Omalium excavatum</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Metopsia clypeata</i>	a rove-beetle	None	1				1
Insecta	Coleoptera	Staphylinidae	<i>Micropelus staphylinoides</i>	a rove-beetle	None		1			1
Insecta	Coleoptera	Staphylinidae	<i>Euplectus bonvouloiri</i>	a pselaphine rove-beetle	Nationally Scarce					1
Insecta	Coleoptera	Staphylinidae	<i>Rybaxis longicornis</i>	a pselaphine rove-beetle	None		1			
Insecta	Coleoptera	Staphylinidae	<i>Brachygluta helferi</i>	a pselaphine rove-beetle	None				1	

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status				Corridor
						Lytag	TEEC	The Rest	Coastal
Insecta	Coleoptera	Staphylinidae	<i>Sepedophilus marshami</i>	a rove-beetle	None				1
Insecta	Coleoptera	Staphylinidae	<i>Sepedophilus nigripennis</i>	a rove-beetle	None	1		1	1
Insecta	Coleoptera	Staphylinidae	<i>Tachyporus atriceps</i>	a rove-beetle	None			1	
Insecta	Coleoptera	Staphylinidae	<i>Tachyporus chrysomelinus</i>	a rove-beetle	None				1
Insecta	Coleoptera	Staphylinidae	<i>Tachyporus dispar</i>	a rove-beetle	None			1	1
Insecta	Coleoptera	Staphylinidae	<i>Tachyporus hypnorum</i>	a rove-beetle	None	1	1	1	1
Insecta	Coleoptera	Staphylinidae	<i>Tachyporus nitidulus</i>	a rove-beetle	None	1	1	1	1
Insecta	Coleoptera	Staphylinidae	<i>Tachyporus pallidus</i>	a rove-beetle	None			1	1
Insecta	Coleoptera	Staphylinidae	<i>Tachyporus pusillus</i>	a rove-beetle	None			1	1
Insecta	Coleoptera	Staphylinidae	<i>Tachyporus scitulus</i>	a rove-beetle	RDBK			1	
Insecta	Coleoptera	Staphylinidae	<i>Tachyporus solutus</i>	a rove-beetle	None		1	1	1
Insecta	Coleoptera	Staphylinidae	<i>Tachyporus tersus</i>	a rove-beetle	None			1	
Insecta	Coleoptera	Staphylinidae	<i>Tachinus rufipes</i>	a rove-beetle	None			1	
Insecta	Coleoptera	Staphylinidae	<i>Ischnosoma splendidum</i>	a rove-beetle	None				1
Insecta	Coleoptera	Staphylinidae	<i>Myllaena intermedia</i>	a rove-beetle	None			1	
Insecta	Coleoptera	Staphylinidae	<i>Oxypoda brevicornis</i>	a rove-beetle	None				1
Insecta	Coleoptera	Staphylinidae	<i>Oxypoda ferruginea</i>	a rove-beetle	None				1
Insecta	Coleoptera	Staphylinidae	<i>Oxypoda opaca</i>	a rove-beetle	None				1
Insecta	Coleoptera	Staphylinidae	<i>Ocyusa maura</i>	a rove-beetle	None		1		
Insecta	Coleoptera	Staphylinidae	<i>Dacryla fallax</i>	a rove-beetle	Nationally Scarce		1		
Insecta	Coleoptera	Staphylinidae	<i>Aloconota gregaria</i>	a rove-beetle	None		1	1	

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Staphylinidae	<i>Amischa analis</i>	a rove-beetle	None	1	1	1		1
Insecta	Coleoptera	Staphylinidae	<i>Liogluta microptera</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Philhygra elongatula</i>	a rove-beetle	None			1		
Insecta	Coleoptera	Staphylinidae	<i>Dilacra vilis</i>	a rove-beetle	None			1		
Insecta	Coleoptera	Staphylinidae	<i>Parameotica difficilis</i>	a rove-beetle	Nationally Scarce		1			
Insecta	Coleoptera	Staphylinidae	<i>Mocyta fungi</i>	a rove-beetle	None	1			1	
Insecta	Coleoptera	Staphylinidae	<i>Mocyta orbata</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Datomicra sordidula</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Mycetota laticollis</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Dimetrota atramentaria</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Dimetrota cauta</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Dimetrota ischnocera</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Dimetrota nigripes</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Dimetrota setigera</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Chaetida longicornis</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Thinobaena vestita</i>	a rove-beetle	None			1		
Insecta	Coleoptera	Staphylinidae	<i>Coprothassa melanaria</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Halobrecta flavipes</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Alianta incana</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Pachnida nigella</i>	a rove-beetle	None	1				1
Insecta	Coleoptera	Staphylinidae	<i>Trichiusa immigrata</i>	a rove-beetle	None					1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Staphylinidae	<i>Aleochara bipustulata</i>	a rove-beetle	None				1	1
Insecta	Coleoptera	Staphylinidae	<i>Aleochara verna</i>	a rove-beetle	RDBK					1
Insecta	Coleoptera	Staphylinidae	<i>Aleochara intricata</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Aleochara lanuginosa</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Tinotus morion</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Drusilla canaliculata</i>	a rove-beetle	None			1		
Insecta	Coleoptera	Staphylinidae	<i>Autalia rivularis</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Hygronomia dimidiata</i>	a rove-beetle	None			1		
Insecta	Coleoptera	Staphylinidae	<i>Cypha discoidea</i>	a rove-beetle	Nationally Scarce (Nb)	1				
Insecta	Coleoptera	Staphylinidae	<i>Cypha longicornis</i>	a rove-beetle	None		1	1	1	1
Insecta	Coleoptera	Staphylinidae	<i>Cypha punctum</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Oligota pumilio</i>	a rove-beetle	None			1	1	1
Insecta	Coleoptera	Staphylinidae	<i>Oligota punctulata</i>	a rove-beetle	None				1	1
Insecta	Coleoptera	Staphylinidae	<i>Carpelimus corticinus</i>	a rove-beetle	None		1	1		1
Insecta	Coleoptera	Staphylinidae	<i>Carpelimus elongatulus</i>	a rove-beetle	None			1		
Insecta	Coleoptera	Staphylinidae	<i>Carpelimus erichsoni</i>	a rove-beetle	None			1		1
Insecta	Coleoptera	Staphylinidae	<i>Carpelimus halophilus</i>	a rove-beetle	Nationally Scarce			1		
Insecta	Coleoptera	Staphylinidae	<i>Carpelimus lindrothi</i>	a rove-beetle	Nationally Scarce			1		
Insecta	Coleoptera	Staphylinidae	<i>Carpelimus rivularis</i>	a rove-beetle	None		1			
Insecta	Coleoptera	Staphylinidae	<i>Carpelimus incongruus</i>	a rove-beetle	None			1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status				Corridor
						Lyttag	TEEC	The Rest	Coastal
Insecta	Coleoptera	Staphylinidae	<i>Platystethus arenarius</i>	a rove-beetle	None				1
Insecta	Coleoptera	Staphylinidae	<i>Platystethus alutaceus</i>	a rove-beetle	None			1	
Insecta	Coleoptera	Staphylinidae	<i>Platystethus nitens</i>	a rove-beetle	None				1
Insecta	Coleoptera	Staphylinidae	<i>Oxytelus laqueatus</i>	a rove-beetle	None				1
Insecta	Coleoptera	Staphylinidae	<i>Anotylus inustus</i>	a rove-beetle	None		1	1	
Insecta	Coleoptera	Staphylinidae	<i>Anotylus nitidulus</i>	a rove-beetle	None		1	1	
Insecta	Coleoptera	Staphylinidae	<i>Anotylus rugosus</i>	a rove-beetle	None	1	1		
Insecta	Coleoptera	Staphylinidae	<i>Anotylus sculpturatus</i>	a rove-beetle	None	1	1		1
Insecta	Coleoptera	Staphylinidae	<i>Anotylus tetricarinaratus</i>	a rove-beetle	None		1	1	
Insecta	Coleoptera	Staphylinidae	<i>Stenus clavicornis</i>	a rove-beetle	None			1	
Insecta	Coleoptera	Staphylinidae	<i>Stenus boops</i>	a rove-beetle	None			1	
Insecta	Coleoptera	Staphylinidae	<i>Stenus nanus</i>	a rove-beetle	None			1	
Insecta	Coleoptera	Staphylinidae	<i>Stenus pusillus</i>	a rove-beetle	None		1		1
Insecta	Coleoptera	Staphylinidae	<i>Stenus brunnipes</i>	a rove-beetle	None	1	1	1	1
Insecta	Coleoptera	Staphylinidae	<i>Stenus cicindeloides</i>	a rove-beetle	None		1		1
Insecta	Coleoptera	Staphylinidae	<i>Stenus fulvicornis</i>	a rove-beetle	None			1	1
Insecta	Coleoptera	Staphylinidae	<i>Stenus flavipes</i>	a rove-beetle	None			1	
Insecta	Coleoptera	Staphylinidae	<i>Stenus picipennis</i>	a rove-beetle	None				1
Insecta	Coleoptera	Staphylinidae	<i>Stenus aceris</i>	a rove-beetle	None	1	1	1	1
Insecta	Coleoptera	Staphylinidae	<i>Stenus impressus</i>	a rove-beetle	None		1		1
Insecta	Coleoptera	Staphylinidae	<i>Stenus ossium</i>	a rove-beetle	None			1	1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Staphylinidae	<i>Stenus pallipes</i>	a rove-beetle	None			1		
Insecta	Coleoptera	Staphylinidae	<i>Stenus subaeneus</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Paederus littoralis</i>	a rove-beetle	None	1		1	1	
Insecta	Coleoptera	Staphylinidae	<i>Astenus immaculatus</i>	a rove-beetle	Nationally Scarce	1				1
Insecta	Coleoptera	Staphylinidae	<i>Astenus lyonessius</i>	a rove-beetle	None	1		1		1
Insecta	Coleoptera	Staphylinidae	<i>Rugilus orbiculatus</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Sunius melanocephalus</i>	a rove-beetle	Nationally Scarce			1		
Insecta	Coleoptera	Staphylinidae	<i>Sunius propinquus</i>	a rove-beetle	None		1	1		1
Insecta	Coleoptera	Staphylinidae	<i>Philonthus carbonarius</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Philonthus intermedius</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Philonthus marginatus</i>	a rove-beetle	None		1			1
Insecta	Coleoptera	Staphylinidae	<i>Philonthus quisquiliarius</i>	a rove-beetle	None			1		
Insecta	Coleoptera	Staphylinidae	<i>Philonthus sanguinolentus</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Philonthus spinipes</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Philonthus splendens</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Philonthus tenuicornis</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Philonthus varians</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Gabrius breviventer</i>	a rove-beetle	None			1		1
Insecta	Coleoptera	Staphylinidae	<i>Ontholestes murinus</i>	a rove-beetle	None					1
Insecta	Coleoptera	Staphylinidae	<i>Ontholestes tessellatus</i>	a rove-beetle	None	1				

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Staphylinidae	<i>Ocyphus fortunatarum</i>	a rove-beetle	Nationally Scarce (Nb)			1		
Insecta	Coleoptera	Staphylinidae	<i>Tasgius ater</i>	a rove-beetle	None			1		
Insecta	Coleoptera	Staphylinidae	<i>Tasgius globulifer</i>	a rove-beetle	None			1		
Insecta	Coleoptera	Staphylinidae	<i>Quedius levicollis</i>	a rove-beetle	None		1		1	
Insecta	Coleoptera	Staphylinidae	<i>Quedius simplicifrons</i>	a rove-beetle	None		1	1		
Insecta	Coleoptera	Staphylinidae	<i>Quedius cinctus</i>	a rove-beetle	None				1	
Insecta	Coleoptera	Staphylinidae	<i>Quedius boops</i>	a rove-beetle	None			1		
Insecta	Coleoptera	Staphylinidae	<i>Quedius semiobscurus</i>	a rove-beetle	None		1		1	
Insecta	Coleoptera	Staphylinidae	<i>Othius laeviusculus</i>	a rove-beetle	None		1	1	1	
Insecta	Coleoptera	Staphylinidae	<i>Gyrohypnus fracticornis</i>	a rove-beetle	None		1		1	
Insecta	Coleoptera	Staphylinidae	<i>Megalinus glabratus</i>	a rove-beetle	None				1	
Insecta	Coleoptera	Staphylinidae	<i>Xantholinus elegans</i>	a rove-beetle	None				1	
Insecta	Coleoptera	Staphylinidae	<i>Xantholinus linearis</i>	a rove-beetle	None				1	
Insecta	Coleoptera	Staphylinidae	<i>Xantholinus longiventris</i>	a rove-beetle	None		1	1		
Insecta	Coleoptera	Scarabaeidae	<i>Onthophagus coenobita</i>	a dung beetle	LC				1	
Insecta	Coleoptera	Scarabaeidae	<i>Onthophagus joannae</i>	a dung beetle	LC	1		1	1	
Insecta	Coleoptera	Scarabaeidae	<i>Onthophagus medius</i>	a dung beetle	LC, NS				1	
Insecta	Coleoptera	Scarabaeidae	<i>Oxyomus sylvestris</i>	a dung beetle	LC				1	
Insecta	Coleoptera	Scarabaeidae	<i>Aphodius rufipes</i>	a dung beetle	LC				1	
Insecta	Coleoptera	Scarabaeidae	<i>Aphodius ater</i>	a dung beetle	LC				1	

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Scarabaeidae	<i>Aphodius fimetarius</i>	a dung beetle	LC					1
Insecta	Coleoptera	Scarabaeidae	<i>Aphodius foetens</i>	a dung beetle	LC					1
Insecta	Coleoptera	Scarabaeidae	<i>Aphodius foetidus</i>	a dung beetle	LC					1
Insecta	Coleoptera	Scarabaeidae	<i>Aphodius granarius</i>	a dung beetle	LC					1
Insecta	Coleoptera	Scarabaeidae	<i>Aphodius pusillus</i>	a dung beetle	LC					1
Insecta	Coleoptera	Scarabaeidae	<i>Aphodius sphacelatus</i>	a dung beetle	LC					1
Insecta	Coleoptera	Scarabaeidae	<i>Aphodius haemorrhoidalis</i>	a dung beetle	LC					1
Insecta	Coleoptera	Scarabaeidae	<i>Aphodius fossor</i>	a dung beetle	LC					1
Insecta	Coleoptera	Scarabaeidae	<i>Aphodius sticticus</i>	a dung beetle	LC					1
Insecta	Coleoptera	Scarabaeidae	<i>Hoplia philanthus</i>	Welsh Chafer	LC	1				
Insecta	Coleoptera	Clambidae	<i>Clambus pallidulus</i>	a beetle	RDBK			1		
Insecta	Coleoptera	Scirtidae	<i>Cyphon coarctatus</i>	a beetle	LC		1	1		
Insecta	Coleoptera	Scirtidae	<i>Cyphon palustris</i>	a beetle	LC			1		
Insecta	Coleoptera	Scirtidae	<i>Scirtes hemisphaericus</i>	a beetle	LC					1
Insecta	Coleoptera	Byrrhidae	<i>Byrrhus pilula</i>	a pill-beetle	None			1		
Insecta	Coleoptera	Byrrhidae	<i>Simplocaria semistriata</i>	a pill-beetle	None			1		
Insecta	Coleoptera	Byrrhidae	<i>Chaetophora spinosa</i>	a pill-beetle	None			1		
Insecta	Coleoptera	Byrrhidae	<i>Curimopsis maritima</i>	a pill-beetle	None					1
Insecta	Coleoptera	Dryopidae	<i>Dryops luridus</i>	a long-toed water beetle	LC					1
Insecta	Coleoptera	Throscidae	<i>Trixagus carinifrons</i>	a beetle	None			1		1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status		Lytag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Elateridae	<i>Agrypnus murinus</i>	a click-beetle	None	1			1	1	
Insecta	Coleoptera	Elateridae	<i>Kibunea minuta</i>	a click-beetle	None	1			1		
Insecta	Coleoptera	Elateridae	<i>Agriotes acuminatus</i>	a click-beetle	None	1	1	1			
Insecta	Coleoptera	Elateridae	<i>Agriotes lineatus</i>	a click-beetle	None		1	1	1	1	
Insecta	Coleoptera	Elateridae	<i>Agriotes sordidus</i>	a click-beetle	RDB3					1	
Insecta	Coleoptera	Elateridae	<i>Agriotes sputator</i>	a click-beetle	None				1	1	1
Insecta	Coleoptera	Elateridae	<i>Melanotus castanipes/villosus</i>	a click-beetle	None						1
Insecta	Coleoptera	Cantharidae	<i>Cantharis cryptica</i>	a soldier-beetle	LC	1	1				
Insecta	Coleoptera	Cantharidae	<i>Cantharis lateralis</i>	a soldier-beetle	LC					1	
Insecta	Coleoptera	Cantharidae	<i>Cantharis rustica</i>	a soldier-beetle	LC	1	1	1			
Insecta	Coleoptera	Cantharidae	<i>Rhagonycha limbata</i>	a soldier-beetle	LC		1	1			
Insecta	Coleoptera	Cantharidae	<i>Rhagonycha fulva</i>	a soldier-beetle	LC	1	1	1			
Insecta	Coleoptera	Cantharidae	<i>Malthinus flaveolus</i>	a soldier-beetle	LC			1			
Insecta	Coleoptera	Ptinidae	<i>Anobium punctatum</i>	The Woodworm	LC	1					
Insecta	Coleoptera	Ptinidae	<i>Anobium fulvicorne</i>	a woodworm	LC	1		1			
Insecta	Coleoptera	Ptinidae	<i>Ptilinus pectinicornis</i>	Fan-bearing Wood-borer	LC			1			
Insecta	Coleoptera	Dasytidae	<i>Dasytes aeratus</i>	a beetle	LC	1		1			
Insecta	Coleoptera	Malachiidae	<i>Malachius bipustulatus</i>	Malachite Beetle	LC	1	1	1			
Insecta	Coleoptera	Malachiidae	<i>Cordylepherus viridis</i>	a malachite beetle	LC	1	1	1	1	1	
Insecta	Coleoptera	Malachiidae	<i>Anthocomus rufus</i>	a malachite beetle	LC		1		1		1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Kateretidae	<i>Brachypterus pulicarius</i>	a pollen beetle	None	1		1		
Insecta	Coleoptera	Kateretidae	<i>Brachypterus glaber</i>	a nettle pollen beetle	None	1	1	1		1
Insecta	Coleoptera	Kateretidae	<i>Brachypterus urticae</i>	a nettle pollen beetle	None	1	1	1		1
Insecta	Coleoptera	Nitidulidae	<i>Epuraea aestiva</i>	a beetle	None	1				
Insecta	Coleoptera	Nitidulidae	<i>Epuraea melanocephala</i>	a beetle	None	1		1		
Insecta	Coleoptera	Nitidulidae	<i>Soronia grisea</i>	a beetle	None	1				
Insecta	Coleoptera	Nitidulidae	<i>Pria dulcamarae</i>	a beetle	None		1			
Insecta	Coleoptera	Nitidulidae	<i>Meligethes aeneus</i>	Common Pollen Beetle	None	1	1	1	1	1
Insecta	Coleoptera	Nitidulidae	<i>Meligethes carinulatus</i>	a pollen beetle	None	1	1	1		1
Insecta	Coleoptera	Nitidulidae	<i>Meligethes flavimanus</i>	a pollen beetle	None	1	1			
Insecta	Coleoptera	Nitidulidae	<i>Meligethes fulvipes</i>	a pollen beetle	Nationally Scarce					1
Insecta	Coleoptera	Nitidulidae	<i>Meligethes nigrescens</i>	a pollen beetle	None			1		
Insecta	Coleoptera	Nitidulidae	<i>Meligethes planiusculus</i>	a pollen beetle	None		1			
Insecta	Coleoptera	Nitidulidae	<i>Meligethes rotundicollis</i>	a pollen beetle	Nationally Scarce			1		1
Insecta	Coleoptera	Nitidulidae	<i>Meligethes ruficornis</i>	a pollen beetle	None	1		1		1
Insecta	Coleoptera	Monotomidae	<i>Rhizophagus parallelocollis</i>	a beetle	None					1
Insecta	Coleoptera	Monotomidae	<i>Monotoma bicolor</i>	a beetle	None					1
Insecta	Coleoptera	Monotomidae	<i>Monotoma picipes</i>	a beetle	None					1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Phalacridae	<i>Phalacrus championi</i>	a beetle	Nationally Scarce (Na)			1		
Insecta	Coleoptera	Phalacridae	<i>Phalacrus fimetarius</i>	a beetle	None				1	
Insecta	Coleoptera	Phalacridae	<i>Olibrus aeneus</i>	a beetle	None			1	1	
Insecta	Coleoptera	Phalacridae	<i>Olibrus affinis</i>	a beetle	None			1	1	1
Insecta	Coleoptera	Phalacridae	<i>Olibrus flavicornis</i>	a beetle	RDBK	1	1	1	1	1
Insecta	Coleoptera	Phalacridae	<i>Olibrus liquidus</i>	a beetle	None	1		1		1
Insecta	Coleoptera	Phalacridae	<i>Stilbus oblongus</i>	a beetle	None	1	1	1		
Insecta	Coleoptera	Cryptophagidae	<i>Telmatophilus typhae</i>	a beetle	None		1	1		
Insecta	Coleoptera	Cryptophagidae	<i>Cryptophagus denticulatus</i>	a beetle	None	1				
Insecta	Coleoptera	Cryptophagidae	<i>Cryptophagus scanicus</i>	a beetle	None		1			
Insecta	Coleoptera	Cryptophagidae	<i>Micrambe ulicis</i>	a beetle	None		1	1		
Insecta	Coleoptera	Cryptophagidae	<i>Antherophagus pallens</i> (formerly <i>nigricornis</i> )	a beetle	None		1			
Insecta	Coleoptera	Cryptophagidae	<i>Atomaria pulchra</i>	a beetle	Nationally Scarce	1				
Insecta	Coleoptera	Cryptophagidae	<i>Atomaria linearis</i>	a beetle	None			1	1	
Insecta	Coleoptera	Cryptophagidae	<i>Atomaria atricapilla</i>	a beetle	None					1
Insecta	Coleoptera	Cryptophagidae	<i>Atomaria fuscata</i>	a beetle	None				1	1
Insecta	Coleoptera	Cryptophagidae	<i>Atomaria rubella</i>	a beetle	None				1	1
Insecta	Coleoptera	Cryptophagidae	<i>Atomaria scutellaris</i>	a beetle	RDBK					1
Insecta	Coleoptera	Cryptophagidae	<i>Atomaria testacea</i>	a beetle	None			1	1	1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status					Corridor
						Lytag	TEEC	The Rest	Coastal	
Insecta	Coleoptera	Cryptophagidae	<i>Ephistemus globulus</i>	a beetle	None					1
Insecta	Coleoptera	Cryptophagidae	<i>Ephistemus reitteri</i>	a beetle	None					1
Insecta	Coleoptera	Byturidae	<i>Byturus tomentosus</i>	Raspberry Beetle	None	1	1	1		
Insecta	Coleoptera	Coccinellidae	<i>Rhyzobius chrysomeloides</i>	a ladybird	None		1	1		1
Insecta	Coleoptera	Coccinellidae	<i>Rhyzobius litura</i>	a ladybird	None	1	1	1	1	1
Insecta	Coleoptera	Coccinellidae	<i>Rhyzobius lophantheae</i>	a ladybird	None	1				
Insecta	Coleoptera	Coccinellidae	<i>Coccidula rufa</i>	a ladybird	None			1		1
Insecta	Coleoptera	Coccinellidae	<i>Coccidula scutellata</i>	a ladybird	None			1		
Insecta	Coleoptera	Coccinellidae	<i>Nephus redtenbacheri</i>	a ladybird	None			1		
Insecta	Coleoptera	Coccinellidae	<i>Scymnus interruptus</i>	a ladybird	None				1	
Insecta	Coleoptera	Coccinellidae	<i>Scymnus auritus</i>	a ladybird	None			1		
Insecta	Coleoptera	Coccinellidae	<i>Scymnus haemorrhoidalis</i>	a ladybird	None					1
Insecta	Coleoptera	Coccinellidae	<i>Scymnus limbatus</i>	a ladybird	Nationally Scarce (Nb)		1			
Insecta	Coleoptera	Coccinellidae	<i>Platynaspis luteorubra</i>	a ladybird	Nationally Scarce (Na)	1		1		
Insecta	Coleoptera	Coccinellidae	<i>Psylllobora vigintiduopunctata</i>	22-spot Ladybird	None	1	1	1	1	1
Insecta	Coleoptera	Coccinellidae	<i>Myrrha octodecimguttata</i>	18-spot Ladybird	None			1		
Insecta	Coleoptera	Coccinellidae	<i>Propylea quattuordecimpunctata</i>	14-spot Ladybird	None	1	1	1		1
Insecta	Coleoptera	Coccinellidae	<i>Harmonia axyridis</i>	Harlequin Ladybird	None		1	1		1
Insecta	Coleoptera	Coccinellidae	<i>Adalia bipunctata</i>	2-spot Ladybird	None	1	1	1	1	1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Coccinellidae	<i>Adalia decempunctata</i>	10-spot Ladybird	None	1	1	1		1
Insecta	Coleoptera	Coccinellidae	<i>Coccinella septempunctata</i>	7-spot Ladybird	None	1	1	1		1
Insecta	Coleoptera	Coccinellidae	<i>Coccinella undecimpunctata</i>	11-spot Ladybird	None			1		1
Insecta	Coleoptera	Coccinellidae	<i>Hippodamia variegata</i>	Adonis' Ladybird	Nationally Scarce (Nb)	1		1		1
Insecta	Coleoptera	Coccinellidae	<i>Anisosticta novemdecimpunctata</i>	Water Ladybird	None					1
Insecta	Coleoptera	Coccinellidae	<i>Typhlaspis sedecimpunctata</i>	16-spot Ladybird	None	1	1	1	1	1
Insecta	Coleoptera	Coccinellidae	<i>Subcoccinella vigintiquatuorpunctata</i>	24-spot Ladybird	None	1	1	1		1
Insecta	Coleoptera	Corylophidae	<i>Corylophus sublaevipennis</i>	a beetle	None					1
Insecta	Coleoptera	Corylophidae	<i>Orthoperus brunnipes</i>	a beetle	RDB3					1
Insecta	Coleoptera	Corylophidae	<i>Sericoderus lateralis</i>	a beetle	None			1		
Insecta	Coleoptera	Corylophidae	<i>Sericoderus brevicornis</i>	a beetle	None				1	1
Insecta	Coleoptera	Latridiidae	<i>Enicmus transversus</i>	a beetle	None			1	1	1
Insecta	Coleoptera	Latridiidae	<i>Cartodere bifasciata</i>	a beetle	None	1	1	1	1	1
Insecta	Coleoptera	Latridiidae	<i>Cartodere nodifer</i>	a beetle	None	1	1	1	1	1
Insecta	Coleoptera	Latridiidae	<i>Corticaria crenulata</i>	a beetle	None					1
Insecta	Coleoptera	Latridiidae	<i>Corticaria impressa</i>	a beetle	None	1	1	1	1	1
Insecta	Coleoptera	Latridiidae	<i>Melanophthalma suturalis</i>	a beetle	None	1	1			1
Insecta	Coleoptera	Latridiidae	<i>Corticarina minuta</i>	a beetle	None	1	1	1		1
Insecta	Coleoptera	Latridiidae	<i>Cortinicara gibbosa</i>	a beetle	None	1	1	1	1	1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Ciidae	<i>Strigocis bicornis</i>	a beetle	Nationally Scarce (Nb)			1		
Insecta	Coleoptera	Tenebrionidae	<i>Lagria hirta</i>	a darkling beetle	LC	1		1	1	
Insecta	Coleoptera	Tenebrionidae	<i>Isomira murina</i>	a darkling beetle	LC	1	1	1	1	1
Insecta	Coleoptera	Oedemeridae	<i>Nacerdes melanura</i>	Wharf-borer	LC				1	
Insecta	Coleoptera	Oedemeridae	<i>Oedemera nobilis</i>	Swollen-thighed Beetle	LC	1	1	1		1
Insecta	Coleoptera	Oedemeridae	<i>Oedemera lurida</i>	a beetle	LC	1	1	1		1
Insecta	Coleoptera	Pyrochroidae	<i>Pyrochroa serraticornis</i>	Common Cardinal Beetle	LC			1		
Insecta	Coleoptera	Salpingidae	<i>Lissodema denticolle</i>	a beetle	LC, NS	1				
Insecta	Coleoptera	Salpingidae	<i>Salpingus planirostris</i>	a beetle	LC	1	1	1		
Insecta	Coleoptera	Anthicidae	<i>Notoxus monoceros</i>	Monoceros Beetle	LC		1			
Insecta	Coleoptera	Anthicidae	<i>Anthicus antherinus</i>	an ant-like flower beetle	LC	1				
Insecta	Coleoptera	Anthicidae	<i>Cyclodinus constrictus</i>	an ant-like flower beetle	LC, NS		1			
Insecta	Coleoptera	Anthicidae	<i>Cordicollis instabilis</i>	an ant-like flower beetle	LC, NS				1	
Insecta	Coleoptera	Scaptiidae	<i>Anaspis frontalis</i>	a beetle	LC	1	1	1		
Insecta	Coleoptera	Scaptiidae	<i>Anaspis maculata</i>	a beetle	LC	1	1	1		1
Insecta	Coleoptera	Scaptiidae	<i>Anaspis pulicaria</i>	a beetle	LC			1	1	1
Insecta	Coleoptera	Scaptiidae	<i>Anaspis rufilabris</i>	a beetle	LC		1	1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Cerambycidae	<i>Grammoptera ruficornis</i>	Common Grammoptera	None	1	1			
Insecta	Coleoptera	Cerambycidae	<i>Pseudovadonia livida</i>	Fairy-ring Longhorn	None			1	1	
Insecta	Coleoptera	Cerambycidae	<i>Gracilia minuta</i>	Basket Longhorn	RDB2	1	1			
Insecta	Coleoptera	Cerambycidae	<i>Pogonocherus hispidus</i>	Lesser Thorn-tipped Longhorn	None		1			
Insecta	Coleoptera	Chrysomelidae	<i>Bruchidius imbricornis</i>	a seed-beetle	NA	1	1	1		1
Insecta	Coleoptera	Chrysomelidae	<i>Bruchus brachialis</i>	a seed-beetle	NA	1	1	1	1	
Insecta	Coleoptera	Chrysomelidae	<i>Bruchus loti</i>	a seed-beetle	LC	1	1	1		1
Insecta	Coleoptera	Chrysomelidae	<i>Bruchus rufimanus</i>	a seed-beetle	LC	1				1
Insecta	Coleoptera	Chrysomelidae	<i>Cassida rubiginosa</i>	Thistle Tortoise Beetle	LC	1	1	1		1
Insecta	Coleoptera	Chrysomelidae	<i>Cassida vibex</i>	a tortoise beetle	LC					1
Insecta	Coleoptera	Chrysomelidae	<i>Chrysolina banksii</i>	a leaf-beetle	LC	1	1	1		
Insecta	Coleoptera	Chrysomelidae	<i>Chrysolina oricalcia</i>	a leaf-beetle	LC					1
Insecta	Coleoptera	Chrysomelidae	<i>Gastrophysa polygoni</i>	a leaf-beetle	LC					1
Insecta	Coleoptera	Chrysomelidae	<i>Phaedon cochleariae</i>	a leaf-beetle	LC				1	
Insecta	Coleoptera	Chrysomelidae	<i>Phaedon tumidulus</i>	a leaf-beetle	LC					1
Insecta	Coleoptera	Chrysomelidae	<i>Phratora vitellinae</i>	a leaf-beetle	LC			1		
Insecta	Coleoptera	Chrysomelidae	<i>Pyrrhalta viburni</i>	a leaf-beetle	LC	1				
Insecta	Coleoptera	Chrysomelidae	<i>Lochmaea crataegi</i>	Hawthorn Leaf-beetle	LC	1	1			

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Chrysomelidae	<i>Phyllotreta atra</i>	a flea-beetle	LC	1	1	1		1
Insecta	Coleoptera	Chrysomelidae	<i>Phyllotreta consobrina</i>	a flea-beetle	LC, NS	1		1		1
Insecta	Coleoptera	Chrysomelidae	<i>Phyllotreta cruciferae</i>	a flea-beetle	LC	1	1	1		
Insecta	Coleoptera	Chrysomelidae	<i>Phyllotreta nigripes</i>	a flea-beetle	LC	1	1	1		1
Insecta	Coleoptera	Chrysomelidae	<i>Phyllotreta punctulata</i>	a flea-beetle	LC, NS	1				1
Insecta	Coleoptera	Chrysomelidae	<i>Phyllotreta undulata</i>	a flea-beetle	LC		1	1		
Insecta	Coleoptera	Chrysomelidae	<i>Aphthona euphorbiae</i>	a flea-beetle	LC	1	1	1		1
Insecta	Coleoptera	Chrysomelidae	<i>Aphthona nigriceps</i>	a flea-beetle	LC, NS		1	1		
Insecta	Coleoptera	Chrysomelidae	<i>Longitarsus ballotae</i>	a flea-beetle	LC, NS		1	1		1
Insecta	Coleoptera	Chrysomelidae	<i>Longitarsus dorsalis</i>	a flea-beetle	LC	1	1	1		1
Insecta	Coleoptera	Chrysomelidae	<i>Longitarsus exoletus</i>	a flea-beetle	LC		1			
Insecta	Coleoptera	Chrysomelidae	<i>Longitarsus flavidornis</i>	a flea-beetle	LC	1	1	1		1
Insecta	Coleoptera	Chrysomelidae	<i>Longitarsus ganglbaueri</i>	a flea-beetle	LC, NS			1		
Insecta	Coleoptera	Chrysomelidae	<i>Longitarsus gracilis</i>	a flea-beetle	LC		1	1		1
Insecta	Coleoptera	Chrysomelidae	<i>Longitarsus melanocephalus</i>	a flea-beetle	LC					1
Insecta	Coleoptera	Chrysomelidae	<i>Longitarsus ochroleucus</i>	a flea-beetle	LC, NS		1	1		
Insecta	Coleoptera	Chrysomelidae	<i>Longitarsus parvulus</i>	a flea-beetle	LC		1	1	1	1
Insecta	Coleoptera	Chrysomelidae	<i>Longitarsus pratensis</i>	a flea-beetle	LC	1		1		1
Insecta	Coleoptera	Chrysomelidae	<i>Longitarsus quadriguttatus</i>	a flea-beetle	LC, NR					1
Insecta	Coleoptera	Chrysomelidae	<i>Longitarsus succineus</i>	a flea-beetle	LC			1		1
Insecta	Coleoptera	Chrysomelidae	<i>Longitarsus suturellus</i>	a flea-beetle	LC	1		1		1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Chrysomelidae	<i>Altica lythri</i>	a flea-beetle	LC	1		1		1
Insecta	Coleoptera	Chrysomelidae	<i>Altica palustris</i>	a flea-beetle	LC			1		
Insecta	Coleoptera	Chrysomelidae	<i>Batophila aerata</i>	a flea-beetle	LC					1
Insecta	Coleoptera	Chrysomelidae	<i>Neocrepidodera ferruginea</i>	a flea-beetle	LC			1		1
Insecta	Coleoptera	Chrysomelidae	<i>Neocrepidodera transversa</i>	a flea-beetle	LC			1		
Insecta	Coleoptera	Chrysomelidae	<i>Crepidodera aurea</i>	a flea-beetle	LC		1	1		
Insecta	Coleoptera	Chrysomelidae	<i>Epitrix pubescens</i>	a flea-beetle	LC	1	1	1		1
Insecta	Coleoptera	Chrysomelidae	<i>Podagrion fuscicornis</i>	a flea-beetle	LC, NS			1		
Insecta	Coleoptera	Chrysomelidae	<i>Podagrion fuscipes</i>	a flea-beetle	LC, NS					1
Insecta	Coleoptera	Chrysomelidae	<i>Chaetocnema concinna</i>	a flea-beetle	LC			1		
Insecta	Coleoptera	Chrysomelidae	<i>Chaetocnema hortensis</i>	a flea-beetle	LC	1	1	1		1
Insecta	Coleoptera	Chrysomelidae	<i>Sphaeroderma testaceum</i>	a flea-beetle	LC	1		1		1
Insecta	Coleoptera	Chrysomelidae	<i>Psylliodes affinis</i>	a flea-beetle	LC	1				
Insecta	Coleoptera	Chrysomelidae	<i>Psylliodes chrysocephala</i>	a flea-beetle	LC	1		1		1
Insecta	Coleoptera	Chrysomelidae	<i>Cryptocephalus fulvus</i>	a leaf-beetle	LC	1	1	1		1
Insecta	Coleoptera	Chrysomelidae	<i>Cryptocephalus hypochaeridis</i>	a leaf-beetle	LC, NS	1				
Insecta	Coleoptera	Chrysomelidae	<i>Cryptocephalus pusillus</i>	a leaf-beetle	LC			1		
Insecta	Coleoptera	Rhynchitidae	<i>Tatianaerhynchites aequatus</i>	a weevil	None	1	1	1		
Insecta	Coleoptera	Rhynchitidae	<i>Neocoenorrhinus germanicus</i>	a weevil	None			1		
Insecta	Coleoptera	Apionidae	<i>Omphalapion hookerorum</i>	a weevil	None			1		
Insecta	Coleoptera	Apionidae	<i>Ceratapion onopordi</i>	a weevil	None	1		1		1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Apionidae	<i>Ceratapion carduorum</i>	a weevil	None					1
Insecta	Coleoptera	Apionidae	<i>Ceratapion gibbirostre</i>	a weevil	None	1		1		1
Insecta	Coleoptera	Apionidae	<i>Diplapion confluens</i>	a weevil	None			1		1
Insecta	Coleoptera	Apionidae	<i>Aspidapion radiolus</i>	a weevil	None		1	1		1
Insecta	Coleoptera	Apionidae	<i>Aspidapion aeneum</i>	a weevil	None		1	1		1
Insecta	Coleoptera	Apionidae	<i>Kalcapion semivittatum</i>	a weevil	Nationally Scarce (Na)			1		
Insecta	Coleoptera	Apionidae	<i>Taeniapion urticarium</i>	a weevil	None	1	1			1
Insecta	Coleoptera	Apionidae	<i>Pseudapion rufirostre</i>	a weevil	None			1		1
Insecta	Coleoptera	Apionidae	<i>Malvapion malvae</i>	a weevil	None			1		1
Insecta	Coleoptera	Apionidae	<i>Exapion ulicis</i>	a weevil	None		1			
Insecta	Coleoptera	Apionidae	<i>Protapion apricans</i>	a weevil	None					1
Insecta	Coleoptera	Apionidae	<i>Protapion difforme</i>	a weevil	Nationally Scarce (Nb)			1		1
Insecta	Coleoptera	Apionidae	<i>Protapion dissimile</i>	a weevil	Nationally Scarce (Nb)	1				
Insecta	Coleoptera	Apionidae	<i>Protapion fulvipes</i>	White Clover Seed Weevil	None		1	1		1
Insecta	Coleoptera	Apionidae	<i>Protapion laevicolle</i>	a weevil	Nationally Scarce (Na)		1	1		
Insecta	Coleoptera	Apionidae	<i>Protapion nigritarse</i>	a weevil	None			1		
Insecta	Coleoptera	Apionidae	<i>Protapion trifolii</i>	a weevil	None		1	1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Apionidae	<i>Protapion varipes</i>	a weevil	Nationally Scarce (Nb)	1	1	1		
Insecta	Coleoptera	Apionidae	<i>Perapion curtirostre</i>	a weevil	None	1		1		
Insecta	Coleoptera	Apionidae	<i>Perapion hydrolapathi</i>	a weevil	None			1	1	
Insecta	Coleoptera	Apionidae	<i>Apion frumentarium</i>	a weevil	None			1	1	
Insecta	Coleoptera	Apionidae	<i>Catapion pubescens</i>	a weevil	Nationally Scarce (Nb)			1	1	
Insecta	Coleoptera	Apionidae	<i>Catapion seniculus</i>	a weevil	None					1
Insecta	Coleoptera	Apionidae	<i>Betulapion simile</i>	a weevil	None	1		1		
Insecta	Coleoptera	Apionidae	<i>Stenopterapion tenue</i>	a weevil	None	1		1	1	
Insecta	Coleoptera	Apionidae	<i>Ischnopterapion loti</i>	a weevil	None	1	1	1		
Insecta	Coleoptera	Apionidae	<i>Ischnopterapion virens</i>	a weevil	None					1
Insecta	Coleoptera	Apionidae	<i>Holotrichapion pisi</i>	a weevil	None			1		
Insecta	Coleoptera	Apionidae	<i>Holotrichapion aethiops</i>	a weevil	None	1	1	1		
Insecta	Coleoptera	Apionidae	<i>Oxystoma pomonae</i>	a weevil	None	1	1	1		
Insecta	Coleoptera	Apionidae	<i>Eutrichapion ervi</i>	a weevil	None	1		1		
Insecta	Coleoptera	Erirhinidae	<i>Stenopelmus rufinasus</i>	a weevil	None			1	1	
Insecta	Coleoptera	Erirhinidae	<i>Tanysphyrus lemnae</i>	Duckweed Weevil	None					1
Insecta	Coleoptera	Curculionidae	<i>Otiorhynchus ligneus</i>	a weevil	None					1
Insecta	Coleoptera	Curculionidae	<i>Otiorhynchus raucus</i>	a weevil	Nationally Scarce (Nb)					1
Insecta	Coleoptera	Curculionidae	<i>Otiorhynchus ovatus</i>	a weevil	None	1	1	1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Curculionidae	<i>Otiorhynchus dieckmanni</i>	a weevil	None					1
Insecta	Coleoptera	Curculionidae	<i>Romualdius angustisetulus</i>	a weevil	None	1	1	1		
Insecta	Coleoptera	Curculionidae	<i>Phyllobius roboretanus</i>	Small Green Nettle Weevil	None	1	1	1		1
Insecta	Coleoptera	Curculionidae	<i>Phyllobius virideaeiris</i>	Green Nettle Weevil	None				1	1
Insecta	Coleoptera	Curculionidae	<i>Pachyrhinus lethierryi</i>	a weevil	None	1	1			
Insecta	Coleoptera	Curculionidae	<i>Polydrusus cervinus</i>	a weevil	None	1	1	1		
Insecta	Coleoptera	Curculionidae	<i>Polydrusus pulchellus</i>	Sea-wormwood Weevil	Nationally Scarce (Nb)					1
Insecta	Coleoptera	Curculionidae	<i>Barypeithes pellucidus</i>	a weevil	None			1		1
Insecta	Coleoptera	Curculionidae	<i>Coelositona cinerascens</i>	a weevil	RDBK				1	
Insecta	Coleoptera	Curculionidae	<i>Sitona cylindricollis</i>	a weevil	None				1	
Insecta	Coleoptera	Curculionidae	<i>Sitona hispidulus</i>	a weevil	None		1	1		1
Insecta	Coleoptera	Curculionidae	<i>Sitona humeralis</i>	a weevil	None	1	1	1		1
Insecta	Coleoptera	Curculionidae	<i>Sitona lepidus</i>	a weevil	None	1	1	1		1
Insecta	Coleoptera	Curculionidae	<i>Sitona lineatus</i>	a weevil	None	1	1	1	1	1
Insecta	Coleoptera	Curculionidae	<i>Sitona puncticollis</i>	a weevil	None					1
Insecta	Coleoptera	Curculionidae	<i>Sitona suturalis</i>	a weevil	None	1	1	1		
Insecta	Coleoptera	Curculionidae	<i>Lixus scabricollis</i>	a weevil	RDBK				1	1
Insecta	Coleoptera	Curculionidae	<i>Larinus planus</i>	a weevil	Nationally Scarce (Nb)			1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Curculionidae	<i>Rhinocyllus conicus</i>	a weevil	Nationally Scarce (Na)	1	1	1		1
Insecta	Coleoptera	Curculionidae	<i>Hypera nigrirostris</i>	a weevil	None			1	1	
Insecta	Coleoptera	Curculionidae	<i>Hypera plantaginis</i>	a weevil	None	1	1			1
Insecta	Coleoptera	Curculionidae	<i>Hypera postica</i>	a weevil	None	1		1		1
Insecta	Coleoptera	Curculionidae	<i>Hypera zoilus</i>	a weevil	None					1
Insecta	Coleoptera	Curculionidae	<i>Hypera rumicis</i>	a weevil	None		1	1		
Insecta	Coleoptera	Curculionidae	<i>Magdalis cerasi</i>	a weevil	Nationally Scarce (Nb)		1			
Insecta	Coleoptera	Curculionidae	<i>Pselactus spadix</i>	a weevil	Nationally Scarce (Nb)				1	
Insecta	Coleoptera	Curculionidae	<i>Dorytomus dejani</i>	a weevil	None		1	1		
Insecta	Coleoptera	Curculionidae	<i>Dorytomus tortrix</i>	a weevil	None		1			
Insecta	Coleoptera	Curculionidae	<i>Orthochaetes insignis</i>	a weevil	Nationally Scarce (Nb)		1			
Insecta	Coleoptera	Curculionidae	<i>Orthochaetes setiger</i>	a weevil	Nationally Scarce (Nb)			1		1
Insecta	Coleoptera	Curculionidae	<i>Smicronyx reichi</i>	a weevil	RDB3		1	1	1	
Insecta	Coleoptera	Curculionidae	<i>Rhinoncus pericarpinus</i>	a weevil	None		1	1		1
Insecta	Coleoptera	Curculionidae	<i>Amalus scortillum</i>	a weevil	None					1
Insecta	Coleoptera	Curculionidae	<i>Zacladus exiguus</i>	a crane's-bill weevil	Nationally Scarce (Nb)				1	1
Insecta	Coleoptera	Curculionidae	<i>Parethelcus pollinarius</i>	a weevil	None		1	1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Curculionidae	<i>Hadropontus litura</i>	a weevil	None			1		
Insecta	Coleoptera	Curculionidae	<i>Mogulones asperifoliarum</i>	a weevil	None		1			1
Insecta	Coleoptera	Curculionidae	<i>Ceutorhynchus constrictus</i>	a weevil	Nationally Scarce (Nb)			1		1
Insecta	Coleoptera	Curculionidae	<i>Ceutorhynchus contractus</i>	Cabbage Leaf Weevil	None		1	1		1
Insecta	Coleoptera	Curculionidae	<i>Ceutorhynchus erysimi</i>	a weevil	None					1
Insecta	Coleoptera	Curculionidae	<i>Ceutorhynchus typhae</i>	a weevil	None		1	1		1
Insecta	Coleoptera	Curculionidae	<i>Ceutorhynchus obstrictus</i>	a weevil	None			1		1
Insecta	Coleoptera	Curculionidae	<i>Ceutorhynchus pallidactylus</i>	Cabbage Stem Weevil	None		1	1		1
Insecta	Coleoptera	Curculionidae	<i>Ceutorhynchus picitarsis</i>	a weevil	None					1
Insecta	Coleoptera	Curculionidae	<i>Ceutorhynchus pyrrhorhynchus</i>	a weevil	None					1
Insecta	Coleoptera	Curculionidae	<i>Ceutorhynchus turbatus</i>	a weevil	None	1		1		1
Insecta	Coleoptera	Curculionidae	<i>Trichosirocalus rufulus</i>	a weevil	Nationally Scarce (Na)			1		1
Insecta	Coleoptera	Curculionidae	<i>Trichosirocalus troglodytes</i>	a weevil	None	1	1	1		1
Insecta	Coleoptera	Curculionidae	<i>Nedyus quadrimaculatus</i>	Small Nettle Weevil	None	1	1	1		
Insecta	Coleoptera	Curculionidae	<i>Melanobaris laticollis</i>	a weevil	Nationally Scarce (Na)		1	1		1
Insecta	Coleoptera	Curculionidae	<i>Cosmobaris scolopacea</i>	a weevil	RDB3					1
Insecta	Coleoptera	Curculionidae	<i>Anthonomus pedicularius</i>	a weevil	None	1	1	1		
Insecta	Coleoptera	Curculionidae	<i>Anthonomus rubi</i>	a weevil	None	1	1	1		1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Coleoptera	Curculionidae	<i>Archarius salicivorus</i>	Willow Gall Weevil	None			1		
Insecta	Coleoptera	Curculionidae	<i>Tychius junceus</i>	a weevil	None	1		1	1	
Insecta	Coleoptera	Curculionidae	<i>Tychius picirostris</i>	a weevil	None		1	1		1
Insecta	Coleoptera	Curculionidae	<i>Tychius pusillus</i>	a weevil	Nationally Scarce (Nb)			1		1
Insecta	Coleoptera	Curculionidae	<i>Tychius squamulatus</i>	a weevil	Nationally Scarce (Nb)			1		
Insecta	Coleoptera	Curculionidae	<i>Tychius tibialis</i>	a weevil	Nationally Scarce (Na)		1	1		1
Insecta	Coleoptera	Curculionidae	<i>Sibinia arenariae</i>	a weevil	Nationally Scarce (Nb)					1
Insecta	Coleoptera	Curculionidae	<i>Mecinus collaris</i>	a weevil	Nationally Scarce (Nb)					1
Insecta	Coleoptera	Curculionidae	<i>Mecinus janthinus</i>	a weevil	Nationally Scarce (Na)			1		
Insecta	Coleoptera	Curculionidae	<i>Mecinus pascuorum</i>	a weevil	None	1		1		
Insecta	Coleoptera	Curculionidae	<i>Rhinusa antirrhini</i>	a weevil	None	1		1		
Insecta	Coleoptera	Curculionidae	<i>Isochnus sequensi</i>	a weevil	RDBK			1		
Insecta	Coleoptera	Curculionidae	<i>Hylastes attenuatus</i>	a bark-beetle	None			1		
Insecta	Coleoptera	Curculionidae	<i>Xyleborinus saxesenii</i>	a bark-beetle	None			1		
Insecta	Hymenoptera: Symphyta	Argidae	<i>Arge pagana</i>	a sawfly	None	1	1	1		
Insecta	Hymenoptera: Symphyta	Tenthredinidae	<i>Athalia cordata</i>	a sawfly	None			1		
Insecta	Hymenoptera: Symphyta	Tenthredinidae	<i>Athalia rosae</i>	a sawfly	None	1				

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status				Corridor
						Lyttag	TEEC	The Rest	Coastal
Insecta	Hymenoptera: Symphyta	Tenthredinidae	<i>Heterarthrus vagans</i>	a sawfly	None			1	
Insecta	Hymenoptera: Symphyta	Tenthredinidae	<i>Metallus pumilus</i>	a sawfly	None			1	
Insecta	Hymenoptera: Symphyta	Tenthredinidae	<i>Aglaostigma aucupariae</i>	a sawfly	None	1			
Insecta	Hymenoptera: Symphyta	Tenthredinidae	<i>Tenthredopsis coquebertii</i>	a sawfly	None			1	
Insecta	Hymenoptera: Symphyta	Tenthredinidae	<i>Rhogogaster viridis</i>	a sawfly	None	1			
Insecta	Hymenoptera: Symphyta	Tenthredinidae	<i>Tenthredo arcuata</i>	a sawfly	None				
Insecta	Hymenoptera: Symphyta	Tenthredinidae	<i>Tenthredo brevicornis</i>	a sawfly	None			1	
Insecta	Hymenoptera: Symphyta	Tenthredinidae	<i>Cladius pectinicornis</i>	a sawfly	None	1	1		
Insecta	Hymenoptera: Symphyta	Tenthredinidae	<i>Pontania bridgmanii</i>	a sawfly	None	1	1	1	
Insecta	Hymenoptera: Symphyta	Tenthredinidae	<i>Pontania proxima</i>	a sawfly	None	1		1	
Insecta	Hymenoptera: Symphyta	Cephidae	<i>Cephus spinipes</i>	a sawfly	None	1	1	1	
Insecta	Hymenoptera: Symphyta	Cephidae	<i>Cephus pygmeus</i>	Wheat Stem-borer Sawfly	None	1	1	1	
Insecta	Hymenoptera: Symphyta	Cephidae	<i>Calameuta filiformis</i>	Reed Stem-borer Sawfly	None			1	
Insecta	Hymenoptera: Symphyta	Cephidae	<i>Calameuta pallipes</i>	a sawfly	None	1	1	1	
Insecta	Hymenoptera: Parasitica	Cynipidae	<i>Diplolepis rosae</i>	Rose Bedeguar Gall causer	None			1	
Insecta	Hymenoptera: Aculeata	Dryinidae	<i>Gonatopus clavipes</i>	a solitary wasp	None				1
Insecta	Hymenoptera: Aculeata	Bethylidae	<i>Bethylus fuscicornis</i>	a solitary wasp	None			1	1
Insecta	Hymenoptera: Aculeata	Bethylidae	<i>Epyris niger</i>	a solitary wasp	None			1	1
Insecta	Hymenoptera: Aculeata	Bethylidae	<i>Gonozius claripennis</i>	a solitary wasp	None			1	

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Hymenoptera: Aculeata	Chrysididae	<i>Chrysis ignita</i>	a ruby-tailed wasp	None	1		1		
Insecta	Hymenoptera: Aculeata	Chrysididae	<i>Hedychridium coriaceum</i>	a cuckoo wasp	RDB3			1		
Insecta	Hymenoptera: Aculeata	Chrysididae	<i>Hedychridium roseum</i>	a cuckoo wasp	None			1		
Insecta	Hymenoptera: Aculeata	Chrysididae	<i>Hedychrum niemelai</i>	a cuckoo wasp	RDB3	1		1		
Insecta	Hymenoptera: Aculeata	Chrysididae	<i>Pseudomalus auratus</i>	a cuckoo wasp	None	1	1	1		
Insecta	Hymenoptera: Aculeata	Chrysididae	<i>Trichrysis cyanea</i>	a cuckoo wasp	None	1	1	1		
Insecta	Hymenoptera: Aculeata	Tiphidae	<i>Tiphia femorata</i>	a solitary wasp	None	1		1		
Insecta	Hymenoptera: Aculeata	Tiphidae	<i>Tiphia minuta</i>	The Small Tiphia	Nationally Scarce (Nb)	1		1		
Insecta	Hymenoptera: Aculeata	Tiphidae	<i>Myrmosa atra</i>	Black-headed Velvet-ant	None	1		1		
Insecta	Hymenoptera: Aculeata	Formicidae	<i>Formica cunicularia</i>	an ant	None	1		1	1	1
Insecta	Hymenoptera: Aculeata	Formicidae	<i>Formica fusca</i>	an ant	None	1		1		
Insecta	Hymenoptera: Aculeata	Formicidae	<i>Lasius flavus</i>	an ant	None	1		1		1
Insecta	Hymenoptera: Aculeata	Formicidae	<i>Lasius niger sens. str.</i>	an ant	None	1	1	1	1	1
Insecta	Hymenoptera: Aculeata	Formicidae	<i>Temnothorax nylanderi</i>	an ant	None		1	1	1	1
Insecta	Hymenoptera: Aculeata	Formicidae	<i>Myrmecina graminicola</i>	an ant	None					1
Insecta	Hymenoptera: Aculeata	Formicidae	<i>Myrmica rubra</i>	an ant	None		1	1	1	
Insecta	Hymenoptera: Aculeata	Formicidae	<i>Myrmica sabuleti</i>	an ant	None	1		1		1
Insecta	Hymenoptera: Aculeata	Formicidae	<i>Myrmica scabrinodis</i>	an ant	None		1	1		1
Insecta	Hymenoptera: Aculeata	Formicidae	<i>Myrmica specioides</i>	an ant	RDB3			1		1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Hymenoptera: Aculeata	Formicidae	<i>Ponera coarctata</i>	an ant	Nationally Scarce (Nb)					1
Insecta	Hymenoptera: Aculeata	Formicidae	<i>Stenamma debile</i>	an ant	None		1			
Insecta	Hymenoptera: Aculeata	Pompilidae	<i>Agenioideus cinctellus</i>	a spider-hunting wasp	None	1		1		
Insecta	Hymenoptera: Aculeata	Pompilidae	<i>Anoplius infuscatus</i>	a spider-hunting wasp	None			1		
Insecta	Hymenoptera: Aculeata	Pompilidae	<i>Arachnospila trivialis</i>	a spider-hunting wasp	None			1		
Insecta	Hymenoptera: Aculeata	Pompilidae	<i>Auplopus carbonarius</i>	a spider-hunting wasp	Nationally Scarce (Nb)			1		
Insecta	Hymenoptera: Aculeata	Pompilidae	<i>Dipogon bifasciatus</i>	a spider-hunting wasp	RDB3	1				
Insecta	Hymenoptera: Aculeata	Pompilidae	<i>Episyron rufipes</i>	Red-legged Spider-hunting Wasp	None			1		
Insecta	Hymenoptera: Aculeata	Pompilidae	<i>Evagetes crassicornis</i>	a spider-hunting wasp	None			1		
Insecta	Hymenoptera: Aculeata	Pompilidae	<i>Priocnemis exaltata</i>	a spider-hunting wasp	None	1				
Insecta	Hymenoptera: Aculeata	Eumenidae	<i>Gymnomerus laevipes</i>	a mason wasp	None			1		
Insecta	Hymenoptera: Aculeata	Vespidae	<i>Vespa germanica</i>	German Wasp	None	1	1	1		
Insecta	Hymenoptera: Aculeata	Vespidae	<i>Vespa vulgaris</i>	Common Wasp	None	1	1	1		
Insecta	Hymenoptera: Aculeata	Sphecidae	<i>Ammophila sabulosa</i>	Red-banded Sand Wasp	None			1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Hymenoptera: Aculeata	Crabronidae	<i>Argogorytes fargei</i>	a digger-wasp	Nationally Scarce (Na)			1		
Insecta	Hymenoptera: Aculeata	Crabronidae	<i>Cerceris quinquefasciata</i>	Five-banded Weevil- wasp	RDB3, S41		1	1		
Insecta	Hymenoptera: Aculeata	Crabronidae	<i>Cerceris ruficornis</i>	a digger-wasp	None			1		
Insecta	Hymenoptera: Aculeata	Crabronidae	<i>Cerceris rybyensis</i>	Ornate-tailed Digger-wasp	None	1	1	1		
Insecta	Hymenoptera: Aculeata	Crabronidae	<i>Crabro cribrarius</i>	Slender-bodied Digger-wasp	None			1		
Insecta	Hymenoptera: Aculeata	Crabronidae	<i>Crossocerus ovalis</i>	a digger-wasp	None	1				
Insecta	Hymenoptera: Aculeata	Crabronidae	<i>Crossocerus wesmaeli</i>	Wesmael's Digger- wasp	None			1		
Insecta	Hymenoptera: Aculeata	Crabronidae	<i>Diodontus insidiosus</i>	a digger-wasp	RDB3			1		
Insecta	Hymenoptera: Aculeata	Crabronidae	<i>Diodontus minutus</i>	Minute Black Wasp	None			1		
Insecta	Hymenoptera: Aculeata	Crabronidae	<i>Entomognathus brevis</i>	a digger-wasp	None	1				
Insecta	Hymenoptera: Aculeata	Crabronidae	<i>Gorytes laticinctus</i>	a digger-wasp	RDB3			1		
Insecta	Hymenoptera: Aculeata	Crabronidae	<i>Gorytes quadrifasciatus</i>	Four-banded Digger- wasp	None			1		
Insecta	Hymenoptera: Aculeata	Crabronidae	<i>Lindenius albilabris</i>	a digger-wasp	None	1	1			
Insecta	Hymenoptera: Aculeata	Crabronidae	<i>Mimumesa unicolor</i>	a digger-wasp	Nationally Scarce (Na)			1		
Insecta	Hymenoptera: Aculeata	Crabronidae	<i>Oxybelus uniglumis</i>	Common Spiny Digger-wasp	None			1		
Insecta	Hymenoptera: Aculeata	Crabronidae	<i>Philanthus triangulum</i>	Bee Wolf	RDB2	1	1	1		1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Hymenoptera: Aculeata	Crabronidae	<i>Spilomena troglodytes</i>	a digger-wasp	None			1		
Insecta	Hymenoptera: Aculeata	Crabronidae	<i>Tachysphex pompiliformis</i>	a digger-wasp	None	1		1		
Insecta	Hymenoptera: Aculeata	Crabronidae	<i>Trypoxylon attenuatum</i>	Slender Wood-borer Wasp	None	1	1			
Insecta	Hymenoptera: Aculeata	Crabronidae	<i>Trypoxylon clavicerum</i>	Club-horned Wood-borer Wasp	None	1	1			
Insecta	Hymenoptera: Aculeata	Apidae	<i>Andrena barbilabris</i>	a mining-bee	None	1		1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Andrena bimaculata</i>	Large Gorse Mining-bee	Nationally Scarce (Nb)	1		1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Andrena dorsata</i>	a mining-bee	None	1		1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Andrena flavipes</i>	Yellow-legged Mining-bee	None	1		1		1
Insecta	Hymenoptera: Aculeata	Apidae	<i>Andrena labialis</i>	Large Meadow Mining-bee	None	1		1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Andrena labiata</i>	Red-girdled Mining-bee	Nationally Scarce (Na)			1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Andrena minutula</i>	a mining-bee	None	1		1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Andrena nigrospina</i>	a mining-bee	None	1		1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Andrena niveata</i>	a mining-bee	RDB2	1		1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Andrena scotica</i>	Chocolate Mining-bee	None		1			
Insecta	Hymenoptera: Aculeata	Apidae	<i>Anthophora bimaculata</i>	Green-eyed Flower-bee	None	1	1	1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Apis mellifera</i>	Honey Bee	None			1	1	1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Hymenoptera: Aculeata	Apidae	<i>Bombus hortorum</i>	Small Garden Bumblebee	None		1			
Insecta	Hymenoptera: Aculeata	Apidae	<i>Bombus humilis</i>	Brown-banded Carder-bee	S41		1	1	1	1
Insecta	Hymenoptera: Aculeata	Apidae	<i>Bombus lapidarius</i>	Large Red-tailed Bumblebee	None	1	1	1		1
Insecta	Hymenoptera: Aculeata	Apidae	<i>Bombus lucorum sens. lat.</i>	White-tailed Bumblebee	None	1	1	1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Bombus pascuorum</i>	Common Carder-bee	None	1	1	1		1
Insecta	Hymenoptera: Aculeata	Apidae	<i>Bombus pratorum</i>	Early Bumblebee	None	1	1	1		1
Insecta	Hymenoptera: Aculeata	Apidae	<i>Bombus sylvarum</i>	Shrill Carder-bee	Nationally Scarce (Nb), S41	1		1		1
Insecta	Hymenoptera: Aculeata	Apidae	<i>Bombus sylvestris</i>	a bumblebee	None		1	1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Bombus terrestris</i>	Buff-tailed Bumblebee	None	1		1		1
Insecta	Hymenoptera: Aculeata	Apidae	<i>Bombus vestalis</i>	a bumblebee	None		1	1		1
Insecta	Hymenoptera: Aculeata	Apidae	<i>Ceratina cyanea</i>	Blue Carpenter-bee	RDB3		1	1	1	1
Insecta	Hymenoptera: Aculeata	Apidae	<i>Coelioxys conoidea</i>	a cuckoo bee	None	1				
Insecta	Hymenoptera: Aculeata	Apidae	<i>Colletes halophilus</i>	Sea Aster Bee	Nationally Scarce (Na), S41			1	1	
Insecta	Hymenoptera: Aculeata	Apidae	<i>Colletes hederae</i>	Ivy Bee	None	1				
Insecta	Hymenoptera: Aculeata	Apidae	<i>Colletes similis</i>	Bare-saddled Colletes	None					1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Hymenoptera: Aculeata	Apidae	<i>Dasypoda hirtipes</i>	Pantaloons Bee	Nationally Scarce (Nb)	1		1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Halictus tumulorum</i>	Bronze Furrow-bee	None	1	1	1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Hoplitis spinulosa</i>	a solitary bee	None	1			1	
Insecta	Hymenoptera: Aculeata	Apidae	<i>Hylaeus brevicornis</i>	Short-horned Yellow-faced Bee	None	1				
Insecta	Hymenoptera: Aculeata	Apidae	<i>Hylaeus communis</i>	Common Yellow- faced Bee	None		1		1	
Insecta	Hymenoptera: Aculeata	Apidae	<i>Hylaeus cornutus</i>	Spined Hylaeus	Nationally Scarce (Na)		1	1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Hylaeus hyalinatus</i>	a yellow-faced bee	None			1	1	
Insecta	Hymenoptera: Aculeata	Apidae	<i>Hylaeus pectoralis</i>	Reed Yellow-face Bee	None	1				
Insecta	Hymenoptera: Aculeata	Apidae	<i>Hylaeus signatus</i>	Large Yellow-faced Bee	Nationally Scarce (Nb)		1	1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Lasioglossum calceatum</i>	Slender Mining-bee	None	1		1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Lasioglossum leucoporus</i>	a mining-bee	None	1				
Insecta	Hymenoptera: Aculeata	Apidae	<i>Lasioglossum leucozonium</i>	a mining-bee	None	1		1	1	
Insecta	Hymenoptera: Aculeata	Apidae	<i>Lasioglossum malachurum</i>	Sharp-collared Furrow-bee	Nationally Scarce (Nb)	1		1		1
Insecta	Hymenoptera: Aculeata	Apidae	<i>Lasioglossum minutissimum</i>	Least Furrow-bee	None		1	1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Lasioglossum morio</i>	Green Furrow-bee	None	1		1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Lasioglossum parvulum</i>	a mining-bee	None			1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Hymenoptera: Aculeata	Apidae	<i>Lasioglossum pauperatum</i>	Squat Furrow-bee	RDB3	1		1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Lasioglossum pauxillum</i>	Lobe-spurred Furrow-bee	Nationally Scarce (Na)	1		1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Lasioglossum punctatissimum</i>	a mining-bee	None	1		1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Lasioglossum puncticolle</i>	Ridge-cheeked Furrow-bee	Nationally Scarce (Nb)	1	1	1		1
Insecta	Hymenoptera: Aculeata	Apidae	<i>Lasioglossum smethmanellum</i>	a mining-bee	None	1		1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Lasioglossum villosulum</i>	Shaggy Mining-bee	None	1		1		1
Insecta	Hymenoptera: Aculeata	Apidae	<i>Megachile dorsalis</i>	Silvery Leaf-cutter Bee	Nationally Scarce (Nb)	1	1	1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Megachile maritima</i>	Coastal Leaf-cutter Bee	None	1		1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Megachile versicolor</i>	a leaf-cutter bee	None	1		1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Megachile willughbiella</i>	Willughby's Leaf- cutter Bee	None			1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Melitta leporina</i>	a mining-bee	None	1		1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Nomada fabriciana</i>	Fabricius' Nomad Bee	None	1	1	1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Nomada flava</i>	Flavous Nomad Bee	None	1	1	1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Nomada flavoguttata</i>	Little Nomad Bee	None	1	1	1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Nomada fucata</i>	Painted Nomad Bee	Nationally Scarce (Na)	1		1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Nomada fulvicornis</i>	Six-banded Nomad Bee	RDB3			1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Hymenoptera: Aculeata	Apidae	<i>Panurgus banksianus</i>	Large Shaggy Bee	None			1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Panurgus calcaratus</i>	Small Shaggy Bee	None	1		1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Sphecodes crassus</i>	Swollen-thighed Blood Bee	Nationally Scarce (Nb)		1			
Insecta	Hymenoptera: Aculeata	Apidae	<i>Sphecodes ephippius</i>	a blood bee	None			1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Sphecodes gibbus</i>	a blood bee	None	1				
Insecta	Hymenoptera: Aculeata	Apidae	<i>Sphecodes monilicornis</i>	a blood bee	None			1		
Insecta	Hymenoptera: Aculeata	Apidae	<i>Sphecodes rubicundus</i>	Red-tailed Blood Bee	Nationally Scarce (Na)			1		
Insecta	Neuroptera	Hemerobiidae	<i>Micromus variegatus</i>	a brown lacewing	None	1		1		1
Insecta	Neuroptera	Hemerobiidae	<i>Hemerobius lutescens</i>	a brown lacewing	None	1	1	1		
Insecta	Neuroptera	Chrysopidae	<i>Chrysopa commata</i>	a green lacewing	None	1				
Insecta	Neuroptera	Chrysopidae	<i>Chrysopa perla</i>	a green lacewing	None	1	1	1		
Insecta	Neuroptera	Chrysopidae	<i>Chrysoperla carnea sens. str.</i>	a green lacewing	None	1	1	1		
Insecta	Megaloptera	Sialidae	<i>Sialis lutaria</i>	an alderfly	None					1
Insecta	Diptera	Tipulidae	<i>Nephrotoma appendiculata</i>	a long-palped cranefly	None	1		1		
Insecta	Diptera	Tipulidae	<i>Nephrotoma flavescens</i>	a long-palped cranefly	None	1				
Insecta	Diptera	Tipulidae	<i>Tipula oleracea</i>	a long-palped cranefly	None	1	1	1		
Insecta	Diptera	Tipulidae	<i>Tipula paludosa</i>	a long-palped cranefly	None	1	1	1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Diptera	Limoniidae	<i>Erioptera fusculenta</i>	a short-palped cranefly	None					1
Insecta	Diptera	Limoniidae	<i>Symplecta stictica</i>	a short-palped cranefly	None			1		1
Insecta	Diptera	Limoniidae	<i>Rhipidia maculata</i>	a short-palped cranefly	None		1	1		
Insecta	Diptera	Bibionidae	<i>Dilophus febrilis</i>	a bibionid fly	None	1	1	1		1
Insecta	Diptera	Keroplatidae	<i>Orfelia nemoralis</i>	a fungus gnat	LC	1				
Insecta	Diptera	Cecidomyiidae	<i>Dasineura urticae</i>	a gall midge	None	1	1	1		
Insecta	Diptera	Cecidomyiidae	<i>Iteomyia capreae</i>	a gall midge	None	1		1		
Insecta	Diptera	Scatopsidae	<i>Thripomorpha coxendix</i>	a dung midge	None			1		
Insecta	Diptera	Scatopsidae	<i>Reichertella geniculata</i>	a dung midge	None	1				1
Insecta	Diptera	Scatopsidae	<i>Swammerdamella brevicornis</i>	a dung midge	None	1				
Insecta	Diptera	Ptychopteridae	<i>Ptychoptera albimana</i>	a phantom cranefly	LC	1	1	1		
Insecta	Diptera	Ptychopteridae	<i>Ptychoptera contaminata</i>	a phantom cranefly	LC	1	1	1		
Insecta	Diptera	Dixidae	<i>Dixella attica</i>	a meniscus midge	None					1
Insecta	Diptera	Rhagionidae	<i>Chrysopilus asiliformis</i>	Little Snipefly	LC	1	1	1		
Insecta	Diptera	Rhagionidae	<i>Chrysopilus cristatus</i>	Black Snipefly	LC	1	1	1		
Insecta	Diptera	Rhagionidae	<i>Rhago lineola</i>	Small Fleck-winged Snipefly	LC	1	1	1		
Insecta	Diptera	Rhagionidae	<i>Rhago scolopaceus</i>	Downlooker Snipefly	LC	1		1		
Insecta	Diptera	Tabanidae	<i>Haematopota pluvialis</i>	Notch-horned Cleg	LC	1	1	1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status					Corridor
						Lyttag	TEEC	The Rest	Coastal	
Insecta	Diptera	Tabanidae	<i>Tabanus autumnalis</i>	Large Marsh Horsefly	LC		1	1	1	
Insecta	Diptera	Stratiomyidae	<i>Beris clavipes</i>	Scarce Orange Legionnaire	LC		1	1	1	
Insecta	Diptera	Stratiomyidae	<i>Beris geniculata</i>	Long-horned Black Legionnaire	LC		1	1		
Insecta	Diptera	Stratiomyidae	<i>Beris vallata</i>	Common Orange Legionnaire	LC		1	1	1	
Insecta	Diptera	Stratiomyidae	<i>Chorisops nagatomii</i>	Bright Four-spined Legionnaire	LC		1		1	
Insecta	Diptera	Stratiomyidae	<i>Chorisops tibialis</i>	Dull Four-spined Legionnaire	LC		1	1	1	
Insecta	Diptera	Stratiomyidae	<i>Nemotelus notatus</i>	Flecked Snout	LC		1		1	
Insecta	Diptera	Stratiomyidae	<i>Oxycera trilineata</i>	Three-lined Soldier	LC		1		1	
Insecta	Diptera	Stratiomyidae	<i>Pachygaster atra</i>	Dark-winged Black	LC		1	1	1	
Insecta	Diptera	Stratiomyidae	<i>Pachygaster leachii</i>	Yellow-legged Black	LC		1	1	1	
Insecta	Diptera	Stratiomyidae	<i>Chloromyia formosa</i>	Broad Centurion	LC		1	1	1	
Insecta	Diptera	Stratiomyidae	<i>Microchrysa cyaneiventris</i>	Black Gem	LC		1	1	1	
Insecta	Diptera	Stratiomyidae	<i>Microchrysa flavicornis</i>	Green Gem	LC		1			
Insecta	Diptera	Stratiomyidae	<i>Microchrysa polita</i>	Black-horned Gem	LC		1	1	1	
Insecta	Diptera	Stratiomyidae	<i>Sargus bipunctatus</i>	Twin-spot Centurion	LC		1	1	1	
Insecta	Diptera	Stratiomyidae	<i>Odontomyia tigrina</i>	Black Colonel	LC			1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Diptera	Stratiomyidae	<i>Oplodontha viridula</i>	Common Green Colonel	LC	1		1		
Insecta	Diptera	Therevidae	<i>Thereva nobilitata</i>	Common Stiletto	LC	1		1		
Insecta	Diptera	Asilidae	<i>Machimus atricapillus</i>	Kite-tailed Robberfly	LC	1	1	1		
Insecta	Diptera	Asilidae	<i>Machimus cingulatus</i>	Brown Heath Robberfly	LC	1				1
Insecta	Diptera	Asilidae	<i>Leptogaster cylindrica</i>	Striped Slender Robberfly	LC	1	1	1		
Insecta	Diptera	Asilidae	<i>Dioctria baumhaueri</i>	Stripe-legged Robberfly	LC	1	1	1		
Insecta	Diptera	Asilidae	<i>Dioctria linearis</i>	Small Yellow-legged Robberfly	LC	1	1	1		
Insecta	Diptera	Asilidae	<i>Dioctria rufipes</i>	Common Red-legged Robberfly	LC	1	1	1		
Insecta	Diptera	Hybotidae	<i>Trichina opaca</i>	a hybotid fly	Nationally Scarce	1				
Insecta	Diptera	Hybotidae	<i>Drapetis assimilis</i>	a hybotid fly	LC			1		
Insecta	Diptera	Hybotidae	<i>Platypalpus annulipes</i>	a hybotid fly	LC		1			
Insecta	Diptera	Hybotidae	<i>Platypalpus pallidiventris</i>	a hybotid fly	LC		1			
Insecta	Diptera	Hybotidae	<i>Tachydromia smithi</i>	a hybotid fly	None	1				
Insecta	Diptera	Hybotidae	<i>Tachydromia umbrarum</i>	a hybotid fly	LC		1			
Insecta	Diptera	Empididae	<i>Empis caudatula</i>	a dance fly	LC			1		
Insecta	Diptera	Empididae	<i>Empis tessellata</i>	a dance fly	LC	1	1	1		
Insecta	Diptera	Empididae	<i>Empis livida</i>	a dance fly	LC	1	1	1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Diptera	Empididae	<i>Empis femorata</i>	a dance fly	LC		1	1		
Insecta	Diptera	Dolichopodidae	<i>Chrysotus ciliipes</i>	a long-headed fly	LC			1		
Insecta	Diptera	Dolichopodidae	<i>Chrysotus gramineus</i>	a long-headed fly	LC	1	1	1		
Insecta	Diptera	Dolichopodidae	<i>Dolichopus festivus</i>	a long-headed fly	LC	1	1	1		
Insecta	Diptera	Dolichopodidae	<i>Dolichopus griseipennis</i>	a long-headed fly	LC	1	1	1		
Insecta	Diptera	Dolichopodidae	<i>Dolichopus nubilus</i>	a long-headed fly	LC	1		1		1
Insecta	Diptera	Dolichopodidae	<i>Dolichopus pennatus</i>	a long-headed fly	LC	1	1	1		
Insecta	Diptera	Dolichopodidae	<i>Dolichopus trivialis</i>	a long-headed fly	LC	1	1	1		
Insecta	Diptera	Dolichopodidae	<i>Dolichopus ungulatus</i>	a long-headed fly	LC	1	1	1		
Insecta	Diptera	Dolichopodidae	<i>Dolichopus wahlbergi</i>	a long-headed fly	LC	1	1	1		
Insecta	Diptera	Dolichopodidae	<i>Poecilobothrus nobilitatus</i>	a long-headed fly	LC	1	1	1		
Insecta	Diptera	Dolichopodidae	<i>Poecilobothrus principalis</i>	a long-headed fly	LC	1		1		
Insecta	Diptera	Dolichopodidae	<i>Hydromorphus oceanus</i>	a long-headed fly	LC				1	
Insecta	Diptera	Dolichopodidae	<i>Rhaphium appendiculatum</i>	a long-headed fly	LC	1	1	1		
Insecta	Diptera	Dolichopodidae	<i>Sciapus laetus</i>	a long-headed fly	Nationally Scarce			1		
Insecta	Diptera	Dolichopodidae	<i>Sciapus platypterus</i>	a long-headed fly	LC			1		
Insecta	Diptera	Dolichopodidae	<i>Sympycnus pulicarius</i>	a long-headed fly	LC			1		
Insecta	Diptera	Dolichopodidae	<i>Syntormon pallipes</i>	a long-headed fly	LC				1	
Insecta	Diptera	Lonchopteridae	<i>Lonchoptera bifurcata</i>	a lonchopterid fly	LC	1	1	1		
Insecta	Diptera	Lonchopteridae	<i>Lonchoptera lutea</i>	a lonchopterid fly	LC	1	1	1		
Insecta	Diptera	Syrphidae	<i>Melanostoma mellinum</i>	a hoverfly	LC	1	1	1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Diptera	Syrphidae	<i>Melanostoma scalare</i>	a hoverfly	LC	1	1	1		
Insecta	Diptera	Syrphidae	<i>Platycheirus albimanus</i>	a hoverfly	LC	1	1	1		1
Insecta	Diptera	Syrphidae	<i>Platycheirus clypeatus</i>	a hoverfly	LC	1	1	1		
Insecta	Diptera	Syrphidae	<i>Platycheirus fulviventris</i>	a hoverfly	LC	1	1	1		
Insecta	Diptera	Syrphidae	<i>Platycheirus peltatus</i>	a hoverfly	LC	1	1	1		
Insecta	Diptera	Syrphidae	<i>Platycheirus scutatus sens. str.</i>	a hoverfly	LC	1	1	1		
Insecta	Diptera	Syrphidae	<i>Platycheirus granditarsus</i>	a hoverfly	LC	1	1	1		
Insecta	Diptera	Syrphidae	<i>Paragus haemorrhouss</i>	a hoverfly	LC	1		1		
Insecta	Diptera	Syrphidae	<i>Chrysotoxum bicinctum</i>	a hoverfly	LC	1	1	1		
Insecta	Diptera	Syrphidae	<i>Chrysotoxum festivum</i>	a hoverfly	LC	1		1		
Insecta	Diptera	Syrphidae	<i>Chrysotoxum verralli</i>	a hoverfly	LC	1		1		
Insecta	Diptera	Syrphidae	<i>Epistrophe eligans</i>	a hoverfly	LC	1	1	1		
Insecta	Diptera	Syrphidae	<i>Episyrphus balteatus</i>	a hoverfly	LC	1	1	1	1	
Insecta	Diptera	Syrphidae	<i>Eupeodes corollae</i>	a hoverfly	LC	1	1	1		
Insecta	Diptera	Syrphidae	<i>Eupeodes latifasciatus</i>	a hoverfly	LC	1		1		
Insecta	Diptera	Syrphidae	<i>Eupeodes luniger</i>	a hoverfly	LC	1	1	1		1
Insecta	Diptera	Syrphidae	<i>Sphaerophoria rueppellii</i>	a hoverfly	LC	1	1	1		
Insecta	Diptera	Syrphidae	<i>Sphaerophoria scripta</i>	a hoverfly	LC	1	1	1		1
Insecta	Diptera	Syrphidae	<i>Syrphus vitripennis</i>	a hoverfly	LC	1	1	1		
Insecta	Diptera	Syrphidae	<i>Xanthogramma pedissequum</i>	a hoverfly	LC	1	1	1		
Insecta	Diptera	Syrphidae	<i>Cheilosia bergenstammi</i>	a hoverfly	LC	1		1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Diptera	Syrphidae	<i>Cheilosia pagana</i>	a hoverfly	LC	1	1	1		
Insecta	Diptera	Syrphidae	<i>Cheilosia proxima</i>	a hoverfly	LC	1	1	1		
Insecta	Diptera	Syrphidae	<i>Neoascia podagrion</i>	a hoverfly	LC	1	1	1		
Insecta	Diptera	Syrphidae	<i>Neoascia tenur</i>	a hoverfly	LC	1	1	1		
Insecta	Diptera	Syrphidae	<i>Anasimyia contracta</i>	a hoverfly	LC	1				
Insecta	Diptera	Syrphidae	<i>Anasimyia lineata</i>	a hoverfly	LC					
Insecta	Diptera	Syrphidae	<i>Eristalinus sepulchralis</i>	a hoverfly	LC	1		1	1	
Insecta	Diptera	Syrphidae	<i>Eristalis arbustorum</i>	a hoverfly	LC	1	1	1		1
Insecta	Diptera	Syrphidae	<i>Eristalis horticola</i>	a hoverfly	LC		1	1		
Insecta	Diptera	Syrphidae	<i>Eristalis intricaria</i>	a hoverfly	LC	1		1		
Insecta	Diptera	Syrphidae	<i>Eristalis pertinax</i>	a hoverfly	LC	1	1	1		
Insecta	Diptera	Syrphidae	<i>Eristalis tenax</i>	a hoverfly	LC	1	1	1		1
Insecta	Diptera	Syrphidae	<i>Helophilus hybridus</i>	a hoverfly	LC	1	1			
Insecta	Diptera	Syrphidae	<i>Helophilus pendulus</i>	a hoverfly	LC	1	1	1		1
Insecta	Diptera	Syrphidae	<i>Helophilus trivittatus</i>	a hoverfly	LC	1		1		
Insecta	Diptera	Syrphidae	<i>Myathropa florea</i>	a hoverfly	LC	1	1	1		
Insecta	Diptera	Syrphidae	<i>Pipizella viduata</i>	a hoverfly	LC	1	1	1		
Insecta	Diptera	Syrphidae	<i>Pipizella virens</i>	a hoverfly	LC	1	1	1		
Insecta	Diptera	Syrphidae	<i>Triglyphus primus</i>	a hoverfly	Nationally Scarce			1		
Insecta	Diptera	Syrphidae	<i>Volucella bombylans</i>	a hoverfly	LC	1		1		
Insecta	Diptera	Syrphidae	<i>Volucella pellucens</i>	a hoverfly	LC	1	1	1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Diptera	Syrphidae	<i>Volucella zonaria</i>	a hoverfly	LC	1	1	1		
Insecta	Diptera	Syrphidae	<i>Syritta pipiens</i>	a hoverfly	LC	1	1	1	1	
Insecta	Diptera	Syrphidae	<i>Tropidia scita</i>	a hoverfly	LC		1	1		
Insecta	Diptera	Syrphidae	<i>Xylota segnis</i>	a hoverfly	LC			1		
Insecta	Diptera	Pipunculidae	<i>Verrallia aucta</i>	a big-headed fly	LC	1				
Insecta	Diptera	Pipunculidae	<i>Cephalops penultimus</i>	a big-headed fly	LC	1		1		
Insecta	Diptera	Micropezidae	<i>Micropeza corrigiolata</i>	a stilt-fly	LC	1		1		
Insecta	Diptera	Micropezidae	<i>Micropeza lateralis</i>	a stilt-fly	pNationally Scarce	1				
Insecta	Diptera	Psilidae	<i>Chamaepsila persimilis</i>	a rust fly	LC			1		
Insecta	Diptera	Conopidae	<i>Conops quadrifasciatus</i>	a bee-killing fly	None	1		1		
Insecta	Diptera	Conopidae	<i>Physocephala rufipes</i>	a bee-killing fly	None	1		1		
Insecta	Diptera	Conopidae	<i>Thecophora atra</i>	a bee-killing fly	None	1	1	1		
Insecta	Diptera	Conopidae	<i>Sicus ferrugineus</i>	a bee-killing fly	None	1	1	1		
Insecta	Diptera	Pallopteridae	<i>Palloptera saltuum</i>	a flutter-wing fly	LC	1		1		
Insecta	Diptera	Pallopteridae	<i>Palloptera umbellatarum</i>	a flutter-wing fly	LC	1		1		
Insecta	Diptera	Pallopteridae	<i>Palloptera ustulata</i>	a flutter-wing fly	LC	1		1		
Insecta	Diptera	Piophilidae	<i>Protopiophila latipes</i>	a cheese fly	LC	1				
Insecta	Diptera	Ulidiidae	<i>Ceroxys urticae</i>	a picture-winged fly	LC	1	1	1	1	
Insecta	Diptera	Ulidiidae	<i>Dorycera graminum</i>	a picture-winged fly	pNT, S41	1		1		1
Insecta	Diptera	Ulidiidae	<i>Herina frondescentiae</i>	a picture-winged fly	LC	1	1			

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Diptera	Ulidiidae	<i>Melieria omissa</i>	a picture-winged fly	LC				1	
Insecta	Diptera	Ulidiidae	<i>Otites guttatus</i>	a picture-winged fly	LC	1		1		
Insecta	Diptera	Tephritidae	<i>Urophora cardui</i>	a picture-winged fly	None	1	1	1		
Insecta	Diptera	Tephritidae	<i>Campiglossa misella</i>	a picture-winged fly	None	1				
Insecta	Diptera	Tephritidae	<i>Merzomyia westermannii</i>	a picture-winged fly	None	1		1		
Insecta	Diptera	Tephritidae	<i>Sphenella marginata</i>	a picture-winged fly	None	1		1		
Insecta	Diptera	Tephritidae	<i>Tephritis cometa</i>	a picture-winged fly	None		1		1	
Insecta	Diptera	Tephritidae	<i>Tephritis divisa</i>	a picture-winged fly	None		1	1		1
Insecta	Diptera	Tephritidae	<i>Tephritis formosa</i>	a picture-winged fly	None		1			
Insecta	Diptera	Tephritidae	<i>Tephritis matricariae</i>	a picture-winged fly	None	1				
Insecta	Diptera	Tephritidae	<i>Tephritis neesii</i>	a picture-winged fly	None	1	1			1
Insecta	Diptera	Tephritidae	<i>Terellia tussilaginis</i>	a picture-winged fly	None		1			
Insecta	Diptera	Tephritidae	<i>Terellia ruficauda</i>	a picture-winged fly	None		1	1		
Insecta	Diptera	Tephritidae	<i>Xyphosia miliaria</i>	a picture-winged fly	None		1	1		
Insecta	Diptera	Tephritidae	<i>Euleia heraclei</i>	a picture-winged fly	None	1	1	1		
Insecta	Diptera	Tephritidae	<i>Trypetia zoe</i>	a picture-winged fly	None	1				
Insecta	Diptera	Lauxaniidae	<i>Minettia tabidiventris</i>	a lauxaniid fly	LC	1				
Insecta	Diptera	Lauxaniidae	<i>Minettia fasciata</i>	a lauxaniid fly	LC	1	1	1		
Insecta	Diptera	Chamaemyiidae	<i>Chamaemyia herbarum</i>	a chamaemyiid fly	LC	1		1	1	
Insecta	Diptera	Chamaemyiidae	<i>Chamaemyia polystigma</i>	a chamaemyiid fly	LC	1				
Insecta	Diptera	Chamaemyiidae	<i>Leucopis atritarsis</i>	a chamaemyiid fly	LC				1	

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Diptera	Sciomyzidae	<i>Pherbellia cinerella</i>	a snail-killing fly	None	1		1		
Insecta	Diptera	Sciomyzidae	<i>Pherbellia dorsata</i>	a snail-killing fly	Nationally Scarce	1				
Insecta	Diptera	Sciomyzidae	<i>Coremacera marginata</i>	a snail-killing fly	None	1	1	1		
Insecta	Diptera	Sciomyzidae	<i>Ilione albiseta</i>	a snail-killing fly	None	1	1			
Insecta	Diptera	Sciomyzidae	<i>Limnia unguicornis</i>	a snail-killing fly	None	1		1		
Insecta	Diptera	Sciomyzidae	<i>Sepedon sphegea</i>	a snail-killing fly	None	1				
Insecta	Diptera	Sciomyzidae	<i>Tetanocera hyalipennis</i>	a snail-killing fly	None	1				
Insecta	Diptera	Sepsidae	<i>Nemopoda nitidula</i>	an ensign fly	LC				1	
Insecta	Diptera	Sepsidae	<i>Saltella sphondyliae</i>	an ensign fly	LC			1		
Insecta	Diptera	Sepsidae	<i>Sepsis cynipsea</i>	an ensign fly	LC				1	
Insecta	Diptera	Sepsidae	<i>Sepsis fulgens</i>	an ensign fly	LC				1	
Insecta	Diptera	Sepsidae	<i>Sepsis violacea</i>	an ensign fly	LC				1	
Insecta	Diptera	Agromyzidae	<i>Agromyza alnibetulae</i>	a leaf-mining fly	LC	1	1	1		
Insecta	Diptera	Agromyzidae	<i>Agromyza dipsaci</i>	a leaf-mining fly	LC		1	1		
Insecta	Diptera	Agromyzidae	<i>Agromyza nana</i>	a leaf-mining fly	LC			1		
Insecta	Diptera	Agromyzidae	<i>Agromyza pseudoreptans</i>	a leaf-mining fly	LC	1	1	1		
Insecta	Diptera	Agromyzidae	<i>Agromyza reptans</i>	a leaf-mining fly	LC		1	1		
Insecta	Diptera	Agromyzidae	<i>Agromyza vicifoliae</i>	a leaf-mining fly	LC	1		1		
Insecta	Diptera	Agromyzidae	<i>Amauromyza chenopodivora</i>	a leaf-mining fly	LC	1				
Insecta	Diptera	Agromyzidae	<i>Amauromyza labiatarum</i>	a leaf-mining fly	LC	1	1	1		
Insecta	Diptera	Agromyzidae	<i>Calycomyza artemisiae</i>	a leaf-mining fly	LC	1		1		

## Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status		Lytag	TEEC	The Rest	Coastal	Corridor
Insecta	Diptera	Agromyzidae	<i>Cerodontha denticornis</i>	a leaf-mining fly	LC		1		1	1	
Insecta	Diptera	Agromyzidae	<i>Cerodontha lateralis</i>	a leaf-mining fly	LC		1				
Insecta	Diptera	Agromyzidae	<i>Chromatomyia horticola</i>	a leaf-mining fly	LC		1	1	1		
Insecta	Diptera	Agromyzidae	<i>Chromatomyia milii</i>	a leaf-mining fly	LC		1				
Insecta	Diptera	Agromyzidae	<i>Chromatomyia syngenesiae</i>	a leaf-mining fly	LC		1	1	1		
Insecta	Diptera	Agromyzidae	<i>Liriomyza eupatorii</i>	a leaf-mining fly	LC				1		
Insecta	Diptera	Agromyzidae	<i>Phytomyza conyzae</i>	a leaf-mining fly	LC		1		1		
Insecta	Diptera	Agromyzidae	<i>Phytomyza ranunculi</i>	a leaf-mining fly	LC		1		1		
Insecta	Diptera	Agromyzidae	<i>Phytomyza tussilaginis</i>	a leaf-mining fly	LC		1	1			
Insecta	Diptera	Opomyzidae	<i>Geomyza balachowskyi</i>	an opomyzid fly	LC		1		1		
Insecta	Diptera	Opomyzidae	<i>Geomyza tripunctata</i>	an opomyzid fly	LC		1	1	1		
Insecta	Diptera	Opomyzidae	<i>Opomyza florum</i>	an opomyzid fly	LC		1	1	1		
Insecta	Diptera	Opomyzidae	<i>Opomyza germinationis</i>	an opomyzid fly	LC		1	1	1		
Insecta	Diptera	Opomyzidae	<i>Opomyza petrei</i>	an opomyzid fly	LC		1	1	1		1
Insecta	Diptera	Anthomyzidae	<i>Anagnota bicolor</i>	an anthomyzid fly	LC		1				
Insecta	Diptera	Anthomyzidae	<i>Anthomyza collini</i>	an anthomyzid fly	LC		1		1		
Insecta	Diptera	Anthomyzidae	<i>Anthomyza gracilis</i>	an anthomyzid fly	LC		1		1		
Insecta	Diptera	Anthomyzidae	<i>Stiphrosoma sabulosum</i>	an anthomyzid fly	LC					1	1
Insecta	Diptera	Chloropidae	<i>Camarota curvipennis</i>	a frit fly	LC		1				
Insecta	Diptera	Chloropidae	<i>Chlorops pumilionis</i>	a frit fly	LC				1		
Insecta	Diptera	Chloropidae	<i>Cryptonevra flavitarsis</i>	a frit fly	LC				1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Diptera	Chloropidae	<i>Lasiosina herpini</i>	a frit fly	LC	1				
Insecta	Diptera	Chloropidae	<i>Thaumatomyia glabra</i>	a frit fly	LC			1		
Insecta	Diptera	Chloropidae	<i>Thaumatomyia hallandica</i>	a frit fly	LC			1		
Insecta	Diptera	Chloropidae	<i>Dicraeus styriacus</i>	a frit fly	Nationally Scarce			1		
Insecta	Diptera	Chloropidae	<i>Dicraeus vagans</i>	a frit fly	LC			1		
Insecta	Diptera	Chloropidae	<i>Elachiptera austriaca</i>	a frit fly	LC, NS	1		1		
Insecta	Diptera	Chloropidae	<i>Elachiptera brevipennis</i>	a frit fly	LC	1		1		
Insecta	Diptera	Chloropidae	<i>Elachiptera cornuta s.s.</i>	a frit fly	LC				1	
Insecta	Diptera	Chloropidae	<i>Incertella albipalpis</i>	a frit fly	LC					1
Insecta	Diptera	Chloropidae	<i>Lipara lucens</i>	a frit fly	LC	1	1	1		
Insecta	Diptera	Chloropidae	<i>Lipara rufitarsis</i>	a frit fly	LC	1	1	1		
Insecta	Diptera	Chloropidae	<i>Lasiochaeta pubescens</i>	a frit fly	LC	1		1	1	
Insecta	Diptera	Chloropidae	<i>Oscinella frit</i>	a frit fly	LC	1		1	1	1
Insecta	Diptera	Chloropidae	<i>Oscinella vindicata</i>	a frit fly	LC	1		1		1
Insecta	Diptera	Chloropidae	<i>Tricimba cincta</i>	a frit fly	LC	1				
Insecta	Diptera	Drosophilidae	<i>Drosophila suzukii</i>	a fruit fly	None	1		1	1	1
Insecta	Diptera	Drosophilidae	<i>Scaptomyza pallida</i>	a fruit fly	LC			1	1	
Insecta	Diptera	Campichoetidae	<i>Campichoeta punctum</i>	a campichoetid fly	None	1				
Insecta	Diptera	Camillidae	<i>Camilla flavicauda</i>	a camillid fly	None	1				
Insecta	Diptera	Ephydriidae	<i>Psilopa nitidula</i>	a shore fly	LC	1		1		
Insecta	Diptera	Ephydriidae	<i>Scatella stagnalis</i>	a shore fly	LC	1				

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status				Corridor
						Lyttag	TEEC	The Rest	Coastal
Insecta	Diptera	Ephydriidae	<i>Hydrellia albilabris</i>	a shore fly	LC			1	
Insecta	Diptera	Ephydriidae	<i>Hydrellia griseola</i>	a shore fly	LC				1
Insecta	Diptera	Ephydriidae	<i>Notiphila graecula</i>	a shore fly	LC				1
Insecta	Diptera	Ephydriidae	<i>Philygria picta</i>	a shore fly	LC	1			
Insecta	Diptera	Scathophagidae	<i>Norellisoma spinimanum</i>	a dung fly	None			1	
Insecta	Diptera	Scathophagidae	<i>Scathophaga litorea</i>	a dung fly	None				1
Insecta	Diptera	Scathophagidae	<i>Scathophaga lutaria</i>	a dung fly	None				
Insecta	Diptera	Scathophagidae	<i>Scathophaga stercoraria</i>	a dung fly	None	1			
Insecta	Diptera	Anthomyiidae	<i>Hylemya urbica</i>	a seed fly	LC				1
Insecta	Diptera	Anthomyiidae	<i>Delia florilega</i>	a seed fly	LC			1	
Insecta	Diptera	Anthomyiidae	<i>Delia platura</i>	a seed fly	LC	1			
Insecta	Diptera	Anthomyiidae	<i>Delia radicum</i>	a seed fly	LC			1	
Insecta	Diptera	Anthomyiidae	<i>Leucophora cinerea</i>	a seed fly	LC			1	
Insecta	Diptera	Anthomyiidae	<i>Pegomya bicolor</i>	a seed fly	LC		1	1	
Insecta	Diptera	Anthomyiidae	<i>Pegomya solennis</i>	a seed fly	LC		1	1	
Insecta	Diptera	Anthomyiidae	<i>Pegomya winthemi</i>	a seed fly	LC			1	
Insecta	Diptera	Fanniidae	<i>Fannia armata</i>	a fanniid fly	LC			1	
Insecta	Diptera	Fanniidae	<i>Fannia canicularis</i>	a fanniid fly	LC			1	
Insecta	Diptera	Fanniidae	<i>Fannia lustrator</i>	a fanniid fly	LC			1	
Insecta	Diptera	Fanniidae	<i>Fannia serena</i>	a fanniid fly	LC			1	
Insecta	Diptera	Fanniidae	<i>Fannia similis</i>	a fanniid fly	LC			1	

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status				Corridor
						Lyttag	TEEC	The Rest	Coastal
Insecta	Diptera	Muscidae	<i>Coenosia testacea</i>	a house fly	LC	1		1	
Insecta	Diptera	Muscidae	<i>Spilogona marina</i>	a house fly	LC				1
Insecta	Diptera	Muscidae	<i>Muscina stabulans</i>	False Stable-fly	LC			1	
Insecta	Diptera	Muscidae	<i>Hebecnema vespertina</i>	a house fly	LC	1		1	
Insecta	Diptera	Muscidae	<i>Helina intermedia</i>	a house fly	pNT			1	
Insecta	Diptera	Muscidae	<i>Helina lasiophthalma</i>	a house fly	LC	1		1	
Insecta	Diptera	Muscidae	<i>Helina reversio</i>	a house fly	LC				1
Insecta	Diptera	Muscidae	<i>Phaonia perdita</i>	a house fly	LC			1	
Insecta	Diptera	Calliphoridae	<i>Calliphora vicina</i>	a blowfly	LC	1			
Insecta	Diptera	Calliphoridae	<i>Melanomya nana</i>	a blowfly	LC	1			
Insecta	Diptera	Calliphoridae	<i>Pollenia angustigena</i>	a blowfly	LC	1			
Insecta	Diptera	Calliphoridae	<i>Pollenia pediculata</i>	a blowfly	LC	1		1	
Insecta	Diptera	Calliphoridae	<i>Pollenia rudis</i>	a blowfly	LC	1			
Insecta	Diptera	Rhinophoridae	<i>Phyto melanocephala</i>	a woodlouse fly	None			1	
Insecta	Diptera	Rhinophoridae	<i>Rhinophora lepida</i>	a woodlouse fly	None			1	
Insecta	Diptera	Sarcophagidae	<i>Oebalia cylindrica</i>	a flesh fly	LC			1	
Insecta	Diptera	Sarcophagidae	<i>Brachicoma devia</i>	a flesh fly	LC			1	
Insecta	Diptera	Sarcophagidae	<i>Blaesoxipha plumicornis</i>	a flesh fly	pNT	1			
Insecta	Diptera	Sarcophagidae	<i>Ravinia pernix</i>	a flesh fly	LC	1			1
Insecta	Diptera	Sarcophagidae	<i>Sarcophaga crassimargo</i>	a flesh fly	LC			1	
Insecta	Diptera	Sarcophagidae	<i>Sarcophaga filia</i>	a flesh fly	LC			1	

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Diptera	Sarcophagidae	<i>Sarcophaga nigriventris</i>	a flesh fly	LC	1				
Insecta	Diptera	Sarcophagidae	<i>Sarcophaga incisilobata</i>	a flesh fly	LC			1		
Insecta	Diptera	Tachinidae	<i>Eriothrix rufomaculata</i>	a parasitic fly	None	1	1	1		
Insecta	Diptera	Tachinidae	<i>Lydella grisescens</i>	a parasitic fly	None	1	1		1	
Insecta	Diptera	Tachinidae	<i>Phryxe vulgaris</i>	a parasitic fly	None	1	1	1		
Insecta	Diptera	Tachinidae	<i>Pales pavida</i>	a parasitic fly	None	1				
Insecta	Diptera	Tachinidae	<i>Sturmia bella</i>	a parasitic fly	None	1				
Insecta	Diptera	Tachinidae	<i>Phania funesta</i>	a parasitic fly	None	1				
Insecta	Diptera	Tachinidae	<i>Cistogaster globosa</i>	a parasitic fly	NT	1				
Insecta	Diptera	Tachinidae	<i>Gymnosoma nitens</i>	a parasitic fly	None	1				
Insecta	Diptera	Tachinidae	<i>Gymnosoma rotundatum</i>	a parasitic fly	LC, NS	1				
Insecta	Diptera	Tachinidae	<i>Phasia pusilla</i>	a parasitic fly	None		1			
Insecta	Diptera	Tachinidae	<i>Phasia obesa</i>	a parasitic fly	None	1				
Insecta	Diptera	Tachinidae	<i>Lypha dubia</i>	a parasitic fly	None		1			
Insecta	Diptera	Tachinidae	<i>Macquartia grisea</i>	a parasitic fly	None	1				
Insecta	Diptera	Tachinidae	<i>Actia lamia</i>	a parasitic fly	None		1			
Insecta	Diptera	Tachinidae	<i>Siphona geniculata</i>	a parasitic fly	None		1			
Insecta	Diptera	Tachinidae	<i>Nowickia ferox</i>	a parasitic fly	None		1			
Insecta	Trichoptera	Limnephilidae	<i>Limnephilus rhombicus</i>	a caddisfly	LC					1
Insecta	Lepidoptera	Nepticulidae	<i>Stigmella salicis</i>	Sallow Pigmy	None	1	1	1		
Insecta	Lepidoptera	Nepticulidae	<i>Stigmella aceris</i>	a micro-moth	None		1	1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Lepidoptera	Tischeriidae	<i>Coptotriche angusticollella</i>	a micro-moth	Nationally Scarce B	1				
Insecta	Lepidoptera	Zygaenidae	<i>Zygaena filipendulae</i>	Six-spot Burnet	None	1	1			
Insecta	Lepidoptera	Zygaenidae	<i>Zygaena lonicerae</i>	Narrow-bordered Five-spot Burnet	None			1		
Insecta	Lepidoptera	Psychidae	<i>Luffia ferchaultella</i>	Virgin Smoke	None	1	1	1		
Insecta	Lepidoptera	Psychidae	<i>Epichnopterix plumella</i>	Round-winged Sweep	Nationally Scarce A	1	1	1		
Insecta	Lepidoptera	Lyonetiidae	<i>Lyonetia clerkella</i>	Apple Leaf Miner	None	1	1	1		
Insecta	Lepidoptera	Gracillariidae	<i>Gracillaria syringella</i>	Common Slender	None		1			
Insecta	Lepidoptera	Gracillariidae	<i>Phyllonorycter platani</i>	London Midget	None			1		
Insecta	Lepidoptera	Gracillariidae	<i>Phyllonorycter stettinensis</i>	Small Alder Midget	None			1		
Insecta	Lepidoptera	Gracillariidae	<i>Phyllocnistis unipunctella</i>	Poplar Bent-wing	None			1		
Insecta	Lepidoptera	Sesiidae	<i>Sesia apiformis</i>	Hornet Moth	Nationally Scarce (Nb)			1		1
Insecta	Lepidoptera	Sesiidae	<i>Bembecia ichneumoniformis</i>	Six-belted Clearwing	Nationally Scarce (Nb)	1		1		
Insecta	Lepidoptera	Choreutidae	<i>Anthophila fabriciana</i>	Nettle-tap	None	1	1	1		1
Insecta	Lepidoptera	Yponomeutidae	<i>Ypsolopha sequella</i>	Pied Smudge	None	1				
Insecta	Lepidoptera	Coleophoridae	<i>Coleophora serratella</i>	Common Case-bearer	None			1		
Insecta	Lepidoptera	Coleophoridae	<i>Coleophora alcyonipennella</i>	Clover Case-bearer	None	1		1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Lepidoptera	Coleophoridae	<i>Coleophora artemisicolella</i>	Mugwort Case-bearer	None	1		1		
Insecta	Lepidoptera	Oecophoridae	<i>Agonopterix alstromeriana</i>	Brown-spot Flat-body	None			1		
Insecta	Lepidoptera	Gelechiidae	<i>Chrysoesthia sexguttella</i>	Six-spot Neb	None			1		
Insecta	Lepidoptera	Gelechiidae	<i>Scrobipalpa acuminatella</i>	Pointed Groundling	None			1		
Insecta	Lepidoptera	Blastobasidae	<i>Blastobasis lacticolella</i>	London Dowd	None			1		
Insecta	Lepidoptera	Oecophoridae	<i>Stathmopoda pedella</i>	Alder Signal	Nationally Scarce B			1		
Insecta	Lepidoptera	Momphidae	<i>Mompha raschkiella</i>	Little Cosmet	None	1	1	1		
Insecta	Lepidoptera	Momphidae	<i>Mompha sturnipennella</i>	Kentish Cosmet	Nationally Scarce B	1				
Insecta	Lepidoptera	Cosmopterigidae	<i>Limnaecia phragmitella</i>	Bulrush Cosmet	None	1	1	1		
Insecta	Lepidoptera	Tortricidae	<i>Agapeta hamana</i>	Hook-marked Straw Moth	None	1		1		
Insecta	Lepidoptera	Tortricidae	<i>Aethes tesserana</i>	Downland Conch	None			1		
Insecta	Lepidoptera	Tortricidae	<i>Cochylis hybridella</i>	White-bodied Conch	None			1	1	
Insecta	Lepidoptera	Tortricidae	<i>Grapholita compositella</i>	Triple-stripe Piercer	None	1		1		
Insecta	Lepidoptera	Pyralidae	<i>Chrysoteuchia culmella</i>	Garden Grass-veneer	None	1	1	1		
Insecta	Lepidoptera	Pyralidae	<i>Crambus lathoniellus</i>	Hook-streaked Grass-Veneer	None	1	1	1		
Insecta	Lepidoptera	Pyralidae	<i>Crambus perlella</i>	Yellow Satin Veneer	None	1	1	1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Lepidoptera	Pyralidae	<i>Agriphila selasella</i>	Pale-streak Grass-veneer	None	1	1	1		
Insecta	Lepidoptera	Pyralidae	<i>Agriphila straminella</i>	Pearl Veneer	None	1	1	1		
Insecta	Lepidoptera	Pyralidae	<i>Agriphila tristella</i>	Common Grass-veneer	None	1	1	1		
Insecta	Lepidoptera	Pyralidae	<i>Agriphila inquinatella</i>	Barred Grass-veneer	None	1	1	1		
Insecta	Lepidoptera	Pyralidae	<i>Agriphila geniculea</i>	Elbow-stripe Grass-veneer	None	1	1			
Insecta	Lepidoptera	Pyralidae	<i>Cataclysta lemnata</i>	Small China-mark	None					1
Insecta	Lepidoptera	Pyralidae	<i>Synaphe punctalis</i>	Long-legged Tabby	None					1
Insecta	Lepidoptera	Pterophoridae	<i>Marasmarcha lunaedactyla</i>	Crescent Plume	None	1				
Insecta	Lepidoptera	Pterophoridae	<i>Hellinsia carphodactyla</i>	Citron Plume	None	1	1			
Insecta	Lepidoptera	Hesperiidae	<i>Thymelicus sylvestris</i>	Small Skipper	LC	1		1		
Insecta	Lepidoptera	Hesperiidae	<i>Thymelicus lineola</i>	Essex Skipper	LC	1				
Insecta	Lepidoptera	Hesperiidae	<i>Ochlodes sylvanus</i>	Large Skipper	LC	1		1		
Insecta	Lepidoptera	Pieridae	<i>Colias croceus</i>	Clouded Yellow	LC	1	1	1		1
Insecta	Lepidoptera	Pieridae	<i>Gonepteryx rhamni</i>	Brimstone	LC					1
Insecta	Lepidoptera	Pieridae	<i>Pieris brassicae</i>	Large White	LC	1	1	1		1
Insecta	Lepidoptera	Pieridae	<i>Pieris rapae</i>	Small White	LC	1		1		1
Insecta	Lepidoptera	Pieridae	<i>Pieris napi</i>	Green-veined White	LC	1	1	1	1	1
Insecta	Lepidoptera	Pieridae	<i>Anthocharis cardamines</i>	Orange-tip	LC	1				
Insecta	Lepidoptera	Lycaenidae	<i>Callophrys rubi</i>	Green Hairstreak	LC		1			

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status		Lytag	TEEC	The Rest	Coastal	Corridor
Insecta	Lepidoptera	Lycaenidae	<i>Lycaena phlaeas</i>	Small Copper	LC		1			1	
Insecta	Lepidoptera	Lycaenidae	<i>Aricia agestis</i>	Brown Argus	LC		1	1	1		
Insecta	Lepidoptera	Lycaenidae	<i>Polyommatus icarus</i>	Common Blue	LC		1	1	1		1
Insecta	Lepidoptera	Lycaenidae	<i>Celastrina argiolus</i>	Holly Blue	LC				1		1
Insecta	Lepidoptera	Nymphalidae	<i>Vanessa atalanta</i>	Red Admiral	LC		1	1	1		1
Insecta	Lepidoptera	Nymphalidae	<i>Vanessa cardui</i>	Painted Lady	LC				1		
Insecta	Lepidoptera	Nymphalidae	<i>Aglaia urticae</i>	Small Tortoiseshell	LC			1	1		1
Insecta	Lepidoptera	Nymphalidae	<i>Aglaia io</i>	Peacock	LC		1			1	
Insecta	Lepidoptera	Nymphalidae	<i>Polygonia c-album</i>	Comma	LC		1		1		1
Insecta	Lepidoptera	Satyridae	<i>Pararge aegeria</i>	Speckled Wood	LC		1	1	1		1
Insecta	Lepidoptera	Satyridae	<i>Lasiommata megera</i>	Wall	NT, S41 (BAP (research only))		1		1		1
Insecta	Lepidoptera	Satyridae	<i>Melanargia galathea</i>	Marbled White	LC		1	1	1		
Insecta	Lepidoptera	Satyridae	<i>Pyronia tithonus</i>	Gatekeeper	LC		1	1	1		1
Insecta	Lepidoptera	Satyridae	<i>Maniola jurtina</i>	Meadow Brown	LC		1	1	1		
Insecta	Lepidoptera	Satyridae	<i>Coenonympha pamphilus</i>	Small Heath	NT, S41 (BAP (research only))		1	1	1	1	1
Insecta	Lepidoptera	Satyridae	<i>Aphantopus hyperantus</i>	Ringlet	LC		1		1		
Insecta	Lepidoptera	Lasiocampidae	<i>Euthrix potatoria</i>	Drinker	None		1				
Insecta	Lepidoptera	Geometridae	<i>Idaea subsericeata</i>	Satin Wave	None				1		
Insecta	Lepidoptera	Geometridae	<i>Camptogramma bilineata</i>	Yellow Shell	None		1		1		

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status	Lyttag	TEEC	The Rest	Coastal	Corridor
Insecta	Lepidoptera	Sphingidae	<i>Macroglossum stellatarum</i>	Humming-bird Hawk-moth	None					1
Insecta	Lepidoptera	Notodontidae	<i>Phalera bucephala</i>	Buff-tip	None	1				
Insecta	Lepidoptera	Arctiidae	<i>Eilema complana</i>	Scarce Footman	None				1	
Insecta	Lepidoptera	Arctiidae	<i>Arctia caja</i>	Garden Tiger	S41 (BAP (research only))	1	1			
Insecta	Lepidoptera	Arctiidae	<i>Arctia villica</i>	Cream-spot Tiger	None			1		
Insecta	Lepidoptera	Arctiidae	<i>Phragmatobia fuliginosa</i>	Ruby Tiger	None				1	
Insecta	Lepidoptera	Arctiidae	<i>Tyria jacobaeae</i>	Cinnabar	S41 (BAP (research only))	1	1	1	1	
Insecta	Lepidoptera	Noctuidae	<i>Noctua pronuba</i>	Large Yellow Underwing	None	1				
Insecta	Lepidoptera	Noctuidae	<i>Mythimna l-album</i>	L-album Wainscot	Nationally Scarce (Nb)			1		
Insecta	Lepidoptera	Noctuidae	<i>Calophasia lunula</i>	Toadflax Brocade	RDB3	1	1			
Insecta	Lepidoptera	Noctuidae	<i>Omphaloscelis lunosa</i>	Lunar Underwing	None			1		
Insecta	Lepidoptera	Noctuidae	<i>Luperina testacea</i>	Flounced Rustic	None			1		
Insecta	Lepidoptera	Noctuidae	<i>Autographa gamma</i>	Silver Y	None	1				
Insecta	Lepidoptera	Noctuidae	<i>Euclidia glyphica</i>	Burnet Companion	None	1	1	1		
Gastropoda	Neotaenioglossa	Bithyniidae	<i>Bithynia tentaculata</i>	Common Bithynia	LC					1
Gastropoda	Pulmonata	Agriolimacidae	<i>Deroceras laeve</i>	Marsh Slug	LC			1		
Gastropoda	Pulmonata	Agriolimacidae	<i>Deroceras reticulatum</i>	Netted Field Slug	LC	1	1	1	1	
Gastropoda	Pulmonata	Agriolimacidae	<i>Deroceras invadens</i>	Tramp Slug	LC					1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status				Corridor
						Lyttag	TEEC	The Rest	Coastal
Gastropoda	Pulmonata	Arionidae	<i>Arion (Arion) ater</i>	Large Black Slug	DD	1	1		
Gastropoda	Pulmonata	Arionidae	<i>Arion (Arion) rufus</i>	Large Red Slug	LC	1	1		
Gastropoda	Pulmonata	Arionidae	<i>Arion (Kobeltia) sp.</i>	a slug	None	1	1		
Gastropoda	Pulmonata	Cochlicopidae	<i>Cochlicopa lubricella</i>	a moss-snail	LC	1			
Gastropoda	Pulmonata	Discidae	<i>Discus rotundatus</i>	Rounded Snail	LC			1	
Gastropoda	Pulmonata	Zonitidae	<i>Zonitoides nitidus</i>	Shiny Glass-snail	LC		1	1	
Gastropoda	Pulmonata	Helicidae	<i>Cepaea nemoralis</i>	Brown-lipped Snail	LC	1	1		
Gastropoda	Pulmonata	Helicidae	<i>Cornu aspersum</i>	Garden Snail	LC	1	1	1	1
Gastropoda	Pulmonata	Helicidae	<i>Candidula intersecta</i>	Wrinkled Snail	LC	1	1	1	1
Gastropoda	Pulmonata	Helicidae	<i>Monacha cantiana</i>	Kentish Snail	LC			1	1
Gastropoda	Pulmonata	Helicidae	<i>Monacha sp. (new to Britain)</i>	a snail	None				1
Gastropoda	Pulmonata	Helicidae	<i>Trochulus hispidus</i>	Hairy Snail	LC	1	1	1	1
Gastropoda	Pulmonata	Helicidae	<i>Trochulus striolatus</i>	a snail	LC				1
Gastropoda	Pulmonata	Lymnaeidae	<i>Lymnaea stagnalis</i>	Great Pond-snail	LC			1	
Gastropoda	Pulmonata	Lymnaeidae	<i>Lymnaea fuscus/palustris</i>	Marsh Pond-snail	LC/DD				1
Gastropoda	Pulmonata	Lymnaeidae	<i>Radix auricularia</i>	Ear Pond-snail	LC				
Gastropoda	Pulmonata	Lymnaeidae	<i>Radix balthica</i>	Wandering Pond-snail	LC				
Gastropoda	Pulmonata	Milacidae	<i>Tandonia budapestensis</i>	Budapest Keeled Slug	LC	1			
Gastropoda	Pulmonata	Physidae	<i>Physa fontinalis</i>	Common Bladder-snail	LC				1

Invertebrate survey of Tilbury2

Class	Order	Family	Species (scientific name)	Species (English name)	Conservation Status				Corridor
						TEEC	Lytag	The Rest	Coastal
Gastropoda	Pulmonata	Punctidae	<i>Paralaoma servilis</i>	a snail	NA	1	1	1	
Gastropoda	Pulmonata	Punctidae	<i>Punctum pygmaeum</i>	Dwarf Snail	LC			1	1
Gastropoda	Pulmonata	Valloniidae	<i>Vallonia costata</i>	Ribbed Grass-snail	LC				1
Gastropoda	Pulmonata	Valloniidae	<i>Vallonia excentrica</i>	Eccentric Grass-snail	LC			1	
Gastropoda	Pulmonata	Vertiginidae	<i>Vertigo pygmaea</i>	Common Whorl-snail	LC			1	
Hirudinea	Rhynchobdellae	Glossiphoniidae	<i>Glossiphonia complanata</i>	a leech	None				1