

From: [Constructive Heritage](#)
To: [Rampton2](#)
Subject: Evidence of Seahorses of coast of West Sussex IP 20045425
Date: 20 February 2024 12:47:23
Attachments: [E20045425_20240220_124723_001.jpg](#)
[Hippocampus fact sheet.pdf](#)
[Hippocampus guttulatus fact sheet.pdf](#)
[Evidence of Seahorses in Sussex coastal waters by Elizabeth Marogna 20045425.pdf](#)

You don't often get email from [REDACTED]
Dear Panel Members for Application Examination of Rampton 2 RED Project,

It is my pleasure to contribute to your examination of the above stated project.

In hearing Session 7 on 8 February the issue of Seahorses was brought to the representatives of the applicant. It was stated by the applicant, despite the concerns of Natural England, that "there would be no adverse impact from that injury mechanism (referring to construction related noise)" You asked, at 22:22 "is that because they're not particularly affected by that sort of noise impact". The applicant's representative responded at 22:27 "and population level, they, you know, very patchy in their numbers, they any number that of individuals that would potentially be subject to it would be extremely small and considered negligible."

At this stage I offered anecdotal evidence that Seahorses have been found not only near the mouth of the Arun River, but also all along the coast from Selsey Bill to Newhaven and beyond. They are found in considerable numbers, cannot swim in the traditional sense so cannot move away from source-points of noise, and are legally protected. If there are extremely small numbers, this would evidence that this is a very limited and thus more likely an 'at risk' species. The fact that there are numbers spreading throughout the Sussex Bay signifies to me that due diligence has not been carried out by the applicant. This animal is so sensitive by nature it has been scheduled as legally protected.

Under the Wildlife Countryside Act (as amended 1981) (WCA): Schedule 5, section 9 states, it is illegal to:

Section 9

- Part 1 intentional killing, injuring, taking
- Part 2 possession or control (live or dead animal, part or derivative)
- Part 4 (a) damage to, destruction of, obstruction of access to any structure or place used by a scheduled animal for shelter or protection
- Part 4 (b) disturbance of animal occupying such a structure or place

Further evidence is offered by Neil Garrick-Maidment, Executive Director and Founder, The Seahorse Trust, Fellow of the British Naturalist Association, Visiting Fellow to the faculty of science and technology, Bournemouth, recipient of the David Bellamy Award for distinction as a field naturalist 2023, leading expert on UK Seahorse populations and conservation. He writes:

[REDACTED] Bear in mind also that as I said before, we have records from the fishing industry of seahorses overwintering offshore in large numbers.

There is every good reason to suggest they do this every winter. Many thanks for the email and the map (of Rampton 2 search area) and yes indeed that area has a high concentration of seahorses in it, especially during the winter, where the Short Snouted Seahorse (*Hippocampus hippocampus*) in particular over winters. In one winter we had 172 records, near to that area and there is no reason to suggest that numbers are not the same in that boxed area."



Further information from theseahorsetrust.org:

"In 2008, both British seahorses were protected as named species under the Wildlife and Countryside Act (1981 as amended) as a direct result of our survey work and the World Seahorse Database (WSD). This was as a result and the hard work of the 5,000+ volunteers who have helped us since the start of the survey. We owe them a massive vote of thanks for all their hard work.

Another achievement was the banning, in 2010 of the use of flash photography on welfare grounds. After 47 years of experience, we knew flash photography is harmful and can kill seahorses.

It is now illegal to kill, take or disturb seahorses in British waters. The habitat where seahorses are found is also protected which means that if you find a seahorse in a seagrass bed, that seagrass bed is protected. This is good news for the seahorses and other species that live there.

Due to our knowledge of British seahorses, we have advised many governments, including the British government, through its departments such as Natural England, Joint Nature Conservation Committee (JNCC) and Department For Environment and Rural Affairs (DEFRA), amongst others. We also helped to shape the seahorse licence that is required from MMO to set up seahorse surveys in our waters."

Following this is further supporting evidence. Please feel free to make contact for more information if necessary.

Sincerely,

Elizabeth Marogna
IP no 20045425

Included below:

- 1) Seahorse status under the Wildlife Countryside Act (1981)
- 2) the Precautionary Principle which is enshrined in law
- 3) IUCN and CITES article

Attached:

- 1) Hippocampus hippocampus Fact Sheet
- 2) Hippocampus guttulatus Fact Sheet

Inclusions:

- 1) *Wildlife and Countryside Act (as amended 1981)*

http://jncc.defra.gov.uk/PDF/waca1981_schedule5.pdf <http://jncc.defra.gov.uk/page-3408>

The Wildlife and Countryside Act became part of national law in 1981 (as amended) to protect wildlife and habitats (and includes the intentions of the BERN Convention). It took many years for seahorses to be

recognised through this legislation, added on the 6th of April 2008 and they have been listed in Schedule 5 section 9.

The Seahorse Trust got them added on the 6th of April 2008 after 6 years of lobbying and submission of data following on from work of their British Seahorse Survey (BSS) and data submitted to the National Seahorse Database (NSD) run and organised by The Seahorse Trust.

There are five sections, made up of 6 parts of the WCA Act and schedule 5, section 9 that are of importance to our native seahorse species and their place of shelter and it clearly states:-

The WCA schedule 5, section 9 states, it is illegal to:

Section 9

Part 1	intentional killing, injuring, taking
Part 2	possession or control (live or dead animal, part or derivative)
Part 4	damage to, destruction of, obstruction of access to any structure or place used by a scheduled animal for
(a)	shelter or protection
Part 4	disturbance of animal occupying such a structure or place
(b)	
Part 5	selling, offering for sale, possessing or transporting for the purpose of sale (live or dead animal, part or derivative)
(a)	
Part 5	advertising for buying or selling such things
(b)	

The Wildlife and Countryside Act 1981

The Wildlife and Countryside Act 1981 consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the conservation of wild birds (Birds Directive) in Great Britain (NB Council Directive 79/409/EEC has now been replaced by Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version)). Equivalent provisions for Northern Ireland are contained within the Wildlife (Northern Ireland) Order 1985 and the Nature Conservation and Amenity Lands (Northern Ireland) Order 1985.

The Act received royal assent on 30 October 1981. It is supplemented by the Wildlife and Countryside (Service of Notices) Act 1985, which relates to notices served under the 1981 Act. Various amendments have occurred since the original enactment, some of the most significant being via the

Wildlife and Countryside (Amendment) Act 1985,
Wildlife and Countryside (Amendment) Act 1991,
Countryside and Rights of Way (CROW) Act 2000 (in England and Wales),
Wildlife and Countryside Act 1981 (Amendment) (Scotland) Regulations 2001,
Wildlife and Countryside Act 1981 (England and Wales) (Amendment) Regulations 2004,
Wildlife and Countryside Act 1981 (Amendment) (Wales) Regulations 2004,
Nature Conservation (Scotland) Act 2004 (in Scotland),
Equivalent provisions for Northern Ireland are contained within the Wildlife (Northern

Ireland) Order 1985 and the Nature Conservation and Amenity Lands (Northern Ireland)

Order 1985

and the Natural Environment and Rural Communities Act 2006 (in England and Wales).

There are also numerous country-specific Orders pertaining to Variation of Schedules of the Act.

In Northern Ireland legislative amendments have taken place through the Wildlife (Amendment) (Northern Ireland) Order 1995 and the Environment (Northern Ireland) Order 2002.

The original Wildlife and Countryside Act 1981 text is available and an updated version is available on Legislation.gov.uk website.

There is also a statutory five-yearly review of Schedules 5 and 8 (protected wild animals and plants respectively) and period review of Schedule 9 (in relation to non-native

species). These reviews are undertaken by the country agencies and coordinated by JNCC. Containing four Parts and 17 Schedules, the Act covers protection of wildlife (birds, and some animals and plants), the countryside, National Parks, and the designation of protected areas, and public rights of way. (Further details on the Schedules>>>)

Wildlife - other animals

The Act makes it an offence (subject to exceptions) to intentionally (or recklessly) - only under the Nature Conservation (Scotland) Act 2004 kill, injure or take any wild animal listed on Schedule 5, and prohibits interference with places used for shelter or protection, or intentionally disturbing animals occupying such places. The Act also prohibits certain methods of killing, injuring, or taking wild animals.

Quinquennial Review

Every five years, the statutory nature conservation agencies Natural England, Natural Resources Wales (formerly Countryside Council for Wales) and Scottish Natural Heritage, working jointly through the Joint Nature Conservation Committee (JNCC), are required to review Schedules 5 and 8 of the Wildlife and Countryside Act 1981, and to make recommendations to the Secretary of State and Ministers for the Environment. Schedule 5 lists animals (other than birds) which are specially protected, and Schedule 8 lists plants (vascular plants, bryophytes, lichens and fungi) which are specially protected.

The statutory nature conservation bodies and JNCC prepare recommendations which are sent to the Joint Committee for approval prior to being submitted as JNCC advice to Defra and the Devolved Administrations in Great Britain.

There have been five QORs and recommendations from the sixth QOR are under review.

5th QOR was submitted by JNCC in 2008. Defra and the Welsh Government responded to these recommendations in 2010.

Sites of Special Scientific Interest and other protected areas

Sections 28 to 33 of Part 2 of the Wildlife and Countryside Act detail the law regarding SSSIs. See Sites of Special Scientific Interest. Sections 34 to 53 deal with other protected areas within Great Britain.

The Act provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs) - these sites are identified for their flora, fauna, geological or physiographical features - by the country conservation bodies in England (Natural England) and Wales (Natural Resources Wales). (NB In Scotland similar powers are afforded to Scottish Natural Heritage under the Nature Conservation (Scotland) Act 2004 and in Northern Ireland the Council for Nature Conservation and the Countryside have powers under the Environment (Northern Ireland) Order 2002) to designate Areas of Special Scientific Interest (ASSIs).

A notification must be served on the relevant local planning authority, all land owners and occupiers, and the Secretary of State, specifying the time period within which representations and objections may be made. The country conservation bodies must consider these responses and may withdraw or confirm the notification, with or without amendment. The Act also contains measures for the protection and management of SSSIs.

The Act provides for the making of Limestone Pavement Orders, which prohibit the disturbance and removal of limestone from such designated areas, and the designation of Marine Nature Reserves. The Act prohibits the undertaking of agricultural or forestry operations on land within National Parks which has been either moor or heath for 20 years, without consent from the relevant planning authority. Planning authorities are also required to make available to the public up to date maps of moor and heath land within National Parks, which are important for the conservation of natural beauty.

<http://www.ukwildlife.com/index.php/wildlife-countryside-act-1981/schedule-5/section-9-1a/>
<http://www.ukwildlife.com/index.php/wildlife-countryside-act-1981/schedule-5/>

Short Snouted Seahorse Hippocampus hippocampus 2008 With respect to England and, since 12/8/2008, Wales

Spiny Seahorse Hippocampus guttulatus 2008 With respect to England and, since 12/8/2008, Wales

2) Precautionary Principle

<http://jncc.defra.gov.uk/default.aspx?page=2519> <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM:I32042>

Introduction

The Precautionary Principle is one of the key elements for policy decisions concerning environmental protection and management. It is applied in the circumstances where there are reasonable grounds for concern that an activity is, or could, cause harm but where there is uncertainty about the probability of the risk and the degree of harm.

The Precautionary Principle has been endorsed internationally on many occasions. At the Earth Summit meeting at Rio in 1992, World leaders agreed Agenda 21, which advocated the widespread application of the Precautionary Principle in the following terms:

'In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.' (Principle 15)

In Fisheries Management this precautionary approach has been defined in two international instruments:

The Food and Agriculture Organisation of the United Nations (FAO) Code of Conduct for Responsible Fisheries (CCRF); and the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNIA).

Both of these share common wording and ideas. The wording used in the CCRF is:

'States should apply the precautionary approach widely to conservation, management and exploitation of living aquatic resources in order to protect them and preserve the aquatic environment. The absence of adequate scientific information should not be used as a reason for postponing or failing to take conservation and management measures.'

The CCRF is a voluntary, non-binding agreement, while the UNIA is now a binding agreement amongst signatory States and entered into force on 11 December 2001.

If there is good reason to suspect a species is in danger or it is being threatened, the authorities can invoke the Precautionary Principle which is in British Law and mentioned in European law. <http://jncc.defra.gov.uk/default.aspx?page=2519>

It can be used to support existing legislation and to intervene if there is good reason to be concerned for example as in the case of Studland Bay where the seahorse numbers dropped from 40 known individuals down to zero in a few years. (Sadly it was never enforced at Studland). This course of action should have been put into place when data was presented showing a disturbing decline in population numbers.

Precautionary Principle and the European Union

The EC Treaty contains a reference to the Precautionary Principle, but does not define it. The Council sought clarification by requesting the Commission to develop clear and effective guidelines for the application of the principle.

In 2000, the European Commission adopted a Communication on the use of the Precautionary Principle, which set out a number of steps to be followed. These were:

if a preliminary scientific evaluation shows that there are reasonable grounds for concern that a particular activity might lead to damaging effects on the environment, or on human, animal or plant health, which would be inconsistent with the protection normally afforded to these within the European Community, the Precautionary Principle is triggered;

Decision-makers then have to determine what action to take. They should take account of the potential consequences of taking no action, the uncertainties inherent in the scientific evaluation, and they should consult interested parties on the possible ways of managing the risk. Measures should be proportionate to the level of risk, and to the desired level of protection. They should be provisional in nature pending the availability of more reliable scientific data; action is then undertaken to obtain further information enabling a more objective assessment of the risk. The measures taken to manage the risk should be maintained so long as the scientific information remains inconclusive and the risk unacceptable.

European implementation

The European Community is in the process of integrating the Precautionary Principle into the Common Fisheries Policy (CFP).

Following a request from the European Commission, the International Council for the Exploration of the Sea (ICES) has developed a procedure for implementing a precautionary approach in its advice to the Commission on fish stocks and future catch levels. This is done by setting reference points - in effect trigger levels at which management action should be taken. ICES identify two types of reference points: 'limit' and 'precautionary'. The intention is that fish stocks are managed so they do not exceed the precautionary limit reference point. Fisheries managers can, therefore, be reasonably confident that limit reference points - at which there is a serious risk of stock collapse - are never reached.

The precautionary reference figures produced by ICES are used by Member States to negotiate catch quotas. Unfortunately, these negotiations often result in quotas exceeding the ICES recommendations. Many fish stocks are now at levels below the precautionary reference point and some are below the limit reference point, thereby requiring drastic recovery plans.

Limitations of the precautionary approach as currently applied

Current action is far from being effectively precautionary: catch quotas tend to be set too high, and neither allowable catch nor recorded landings reflect actual mortality. Catch quotas are set a target for 'catch' which only relates to what is officially landed. Other unquantified elements of mortality arise through (i) bycatches, (ii) discards, and (iii) misreported landings. The incentives for fishermen 'at the point of catch' are inconsistent with the overall objective of sustainable use for the fishery as a whole. In the mixed demersal fishery of most European waters, this creates huge wastage of fish through the anomalous incentive for fishers to catch and discard species which have reached their catch quota for the year, and only land the most marketable individuals of species which are below the catch quota; the approach has only been applied to a selected sub-set of commercial fish stocks for which ICES advice has been requested. Stocks of other species have not yet received such consideration, for example, sharks, rays and many deep-water species whose stocks are particularly sensitive to fishing; the precautionary approach, as currently applied, does not address the wider effects of fisheries on the ecosystem and marine environment. There is compelling scientific evidence to introduce measures to reduce cetacean (specifically harbour porpoise) bycatch, and to better protect sensitive offshore habitats such as Lophelia reefs.

These latter issues may be addressed through an ecosystem-based approach to fisheries management and wildlife conservation. This aims to protect or restore the function, structure, and species composition of an ecosystem while providing for its sustainable socio-economic use. However, quite clearly, the current implementation of the Precautionary Principle in relation to fisheries management is partial and inadequate.

Effective precautionary approaches

For all fisheries, assessing the need for closer oversight of actual fish mortality rather than landings, this may involve more effective monitoring of fishing effort at sea - e.g. via

broadening the use of vessel monitoring systems and assessing the need to decrease outputs (i.e. lower catch limits) especially for fisheries at the limit.

Another widening approach could be taken through input controls - e.g. through spatial management using permanent and temporary exclusion zones, or by limiting days at sea. Considering the need to develop indicators (both for the fishery and for the wider environment) to provide feedback on the effects of fishing activity; reviewing the responsiveness of existing management structures to different interests; non-quota and new fisheries should be the subject of environmental assessment and improved methods of control; habitats and species afforded strict protection under EC legislation should be subject to a high level of precaution.

Strategic implications

In the longer term, they see the need to build confidence amongst all interest groups that a sustainable fishery is a desirable outcome. This will include removing the fear of 'precaution' as a management principle, encouraging confidence that precaution will not be used unreasonably to restrict sustainable fishing activity, and thereby create a permissive environment for decision-makers to take precautionary decisions.

They see the need to move towards management regimes which reward, and foster the values of, good stewardship. The effectiveness of precaution will be greatly enhanced where it reinforces this kind of ownership and stewardship of the resource. Under these circumstances precautionary measures are more likely to be widely supported and implemented by fishermen, meanwhile reducing reliance on stringent (and costly) enforcement mechanisms.

Further reading

Commission of the European Communities. Communication from the Commission on the use of the Precautionary Principle. 2000(1).

Doulman, D.J. 1995. Structure and process of the 1993-1995 United Nations conference on straddling fish stocks and highly migratory fish stocks. FAO Fisheries Circular No. 898.81p

FAO 1999. The state of world fisheries and aquaculture. Food and Agriculture Organisation of the United Nations. Rome. 112p. <http://www.fao.org/>.

FAO 1995a. Code of conduct for responsible fisheries. Food and Agriculture Organisation of the United Nations. Rome. 41p.

FAO 1995b. Precautionary approach to capture fisheries and species introductions. FAO Fisheries Tech. Pap. 350 part 1, Food and Agriculture Organisation of the United Nations.

Rome. 54p. ICES 1997. Report of the Precautionary approach to Fisheries Management. Copenhagen, 5-11 February 1997. ICES CM

1997/Assess: 7. www.ices.dk. ICES 1998. Report of the Precautionary approach to Fisheries Management. Copenhagen, 3-6 February 1998. ICES CM 1998/ACFM: 10.

Jordan, A. and T. O'Riordan. 1999. The Precautionary Principle in contemporary environmental policy and politics. Pages 15-35 in C. Raffensperger and J.A. Tickner, eds. Protecting public health and the environment: implementing the Precautionary Principle. Island Press, Washington, EC.

Myers, R.A., J.A. Hutchings, and N.J. Barrowman. 1997. Why do fish stocks collapse? The example of cod in Atlantic Canada. Ecological Applications 7(1): 91-106.

Rio Declaration 1992. Rio Declaration on environment and development. ISBN 9-21-100509. Rosenberg, A.A., M.J. Fogarty, M.P. Sissenwine, J.R. Beddington and J.G. Shepherd 1993. Achieving sustainable use of renewable resources. Science 262: 828-829.

Rosenberg, A.A. in press. The precautionary approach from a manager's perspective. Bull Mar. Sci. World Humanity Action Trust. 2000. Governance for a sustainable future: II Fishing for the future. World Humanity Action Trust, London. 67p.

3) IUCN Red List of Threatened Species

<http://www.iucnredlist.org/about/introduction>

Introduction

The IUCN Global Species Programme working with the IUCN Species Survival Commission (SSC) has been assessing the conservation status of species, subspecies, varieties, and even selected subpopulations on a global scale for the past 50 years in order to highlight taxa threatened with extinction, and thereby promotes their conservation.

Although today they are operating in a very different political, economic, social and ecological world from that when the first IUCN Red Data Book was produced, the IUCN Global Species Programme, working with the Species Survival Commission and many partners, remains firmly committed to providing the world with the most objective, scientifically-based information on the current status of globally threatened biodiversity.

Red list of threatened species

The IUCN Red List of Threatened Species™ is widely recognized as the most comprehensive, objective global approach for evaluating the conservation status of plant and animal species.

The plants, fungi and animals assessed for The IUCN Red List are the bearers of genetic diversity and the building blocks of ecosystems, and information on their conservation status and distribution which provides the foundation for making informed decisions about conserving biodiversity from local to global levels.

The IUCN Red List of Threatened Species™ provides taxonomic, conservation status and distribution information on plants, fungi and animals that have been globally evaluated using the IUCN Red List Categories and Criteria. This system is designed to determine the relative risk of extinction, and the main purpose of the IUCN Red List is to catalogue and highlight those plants and animals that are facing a higher risk of global extinction (i.e. those listed as **Critically Endangered**, **Endangered** and **Vulnerable**). The IUCN Red List also includes information on plants, fungi and animals that are categorized as **Extinct** or **Extinct in the Wild**; on taxa that cannot be evaluated because of insufficient information (i.e., are **Data Deficient**); and on plants, fungi and animals that are either close to meeting the threatened thresholds or that would be threatened were it not for an ongoing taxon-specific conservation programme (i.e., are **Near Threatened**).

NB

It is important to note that just because a species is not on the 'Extinction Risk' section of the chart below, does not mean it is not at risk. It could be that due to a lack of data its exact determination and status is not known. On the chart below it shows a direct link (in red) from Data Deficient to Endangered in the Extinction risk section.

Plants, fungi and animals that have been evaluated to have a low risk of extinction are classified as **Least Concern**. The Least Concern assessments did not appear on IUCN Red Lists produced before 2003 (except for a few that were listed in 1996) because the main focus of attention has been on threatened species. However, for the sake of transparency and to place threatened assessments in context, all Least Concern assessments are now included on The IUCN Red List. Thus, despite its title, The IUCN Red List of Threatened Species™ does not just focus on threatened species; it considers the status of all species across an increasing number of taxonomic groups. In the past, there has unfortunately been no formal reporting process to capture all the Least Concern assessments; hence the list of Least Concern species on The IUCN Red List is not comprehensive (i.e., many species have been assessed to be Least Concern, but as that information was never formally captured, the listings do not appear on the Red List).

The IUCN Global Species Programme maintains the information behind The IUCN Red List in a centralized database as part of the [Species Information Service \(SIS\)](#). An extract of that information is made publicly available via a searchable database on their web site

Only a small number of the world's plant, fungi and animal species have been assessed. In addition to the many thousands of species which have not yet been assessed (i.e., are **Not Evaluated**), other species that are not included on The IUCN Red List are those that went extinct before 1500 AD and **Least Concern** species that have not yet been data based. The species groups that have been comprehensively assessed include the amphibians, birds, mammals, freshwater crabs, warm-water reef building corals, conifers and cycads. The vast majority of plants listed in the [1997 IUCN Red List of Threatened Plants](#) have not yet been evaluated against the [revised Red List Criteria](#) and are therefore not included.

In-depth analyses of the data contained in the IUCN Red List is published periodically (usually at least once every four years). The results of these analyses are made available in publications which are made freely available via the Publications page of their website.

The Red List of species provides details on the conservation status and global distribution of over 76,000 species along with taxonomic details to support the protection of these species for the future. By assessing species and providing this information, the Red List aims to provide enough background to allow informed decisions to be made on an international, national and local level as regards the protection and conservation of the world's biodiversity. There are still many species to be assessed, mostly due to the lack of data available on them and this includes many species of seahorse.

Seahorses on the IUCN Red List

Seahorse classification is ongoing and new species are being named all the time and as such not all species are listed or represented here.

[Hippocampus abdominalis](#) (Pot-bellied Seahorse) Status: Data Deficient ver 3.1 Pop. trend: unknown

[Hippocampus algiricus](#) (West African Seahorse) Status: Vulnerable A2cd+4cd ver 3.1

[Hippocampus angustus](#) (Narrow-bellied Seahorse) Status: Data Deficient ver 3.1 Pop. trend: unknown

[Hippocampus barboursi](#) (Barbour's Seahorse) Status: Vulnerable A2cd+4cd ver 3.1

[Hippocampus bargibanti](#) (Bargibant's Seahorse) Status: Data Deficient ver 3.1 Pop. trend: unknown

[Hippocampus breviceps](#) (Short-nouted Seahorse) Status: Data Deficient ver 3.1 Pop. trend: unknown

[Hippocampus camelopardalis](#) (Giraffe Seahorse) Status: Data Deficient ver 3.1 Pop. trend: unknown

[Hippocampus capensis](#) (Kynsna Seahorse) Status: Endangered B1ab(i,ii,iii,iv)c(ii)+2ab(i,ii,iii,iv)c(ii) ver 3.1

[Hippocampus comes](#) (Tiger Tail Seahorse) Status: Vulnerable A2bd+4bd ver 3.1

[Hippocampus coronatus](#) (High-crowned Seahorse) Status: Data Deficient ver 3.1

[Hippocampus denise](#) (Denise's Pygmy Seahorse) Status: Data Deficient ver 3.1 Pop. trend: unknown

[Hippocampus erectus](#) (Lined Seahorse) Status: Vulnerable A4cd ver 3.1 Pop. trend: decreasing

[Hippocampus fisheri](#) (Hawaiian Seahorse) Status: Data Deficient ver 3.1 Pop. trend: unknown

[Hippocampus guttulatus](#) (Long-nouted Seahorse) Status: Data Deficient ver 3.1

[Hippocampus haema](#) (Korean Seahorse) Status: Data Deficient ver 3.1

[Hippocampus hippocampus](#) (Short-nouted Seahorse) Status: Data Deficient ver 3.1

[Hippocampus histrix](#) (Thorny Seahorse) Status: Vulnerable A2cd+4cd ver 3.1

[Hippocampus ingens](#) (Giant Seahorse) Status: Vulnerable A2cd+4cd ver 3.1

[Hippocampus jayakari](#) (Jayakar's Seahorse) Status: Data Deficient ver 3.1 Pop. trend: unknown

[Hippocampus kelloggi](#) (Great Seahorse) Status: Vulnerable A2d+4d ver 3.1

[Hippocampus kuda](#) (Spotted Seahorse) Status: Vulnerable A2cd+3cd+4cd ver 3.1

[Hippocampus minotaur](#) (Bullneck Seahorse) Status: Data Deficient ver 3.1 Pop. trend: unknown

[Hippocampus mohikici](#) (Japanese Seahorse) Status: Data Deficient ver 3.1 Pop. trend: unknown

[Hippocampus planifrons](#) (Flatface Seahorse) Status: Vulnerable A2cd ver 2.3

[Hippocampus pontohi](#) (Pontoh's Pygmy Seahorse) ¹/₃ Status: Data Deficient ver 3.1 ¹/₃ Pop. trend: unknown
[Hippocampus roidi](#) (Long-snout Seahorse) ¹/₃ Status: Data Deficient ver 3.1 ¹/₃ (needs updating) ¹/₃ Pop. trend: unknown
[Hippocampus satomiae](#) (Satomi's Pygmy Seahorse) ¹/₃ Status: Data Deficient ver 3.1 ¹/₃ Pop. trend: unknown
[Hippocampus sindonis](#) (Sindo's Seahorse) ¹/₃ Status: Least Concern ver 3.1 ¹/₃ Pop. trend: unknown
[Hippocampus spinosissimus](#) (Hedgehog Seahorse) ¹/₃ Status: Vulnerable A2d+4d ver 3.1 ¹/₃ Pop. trend: decreasing
[Hippocampus subelongatus](#) (West Australian Seahorse) ¹/₃ Status: Data Deficient ver 3.1 ¹/₃ (needs updating) ¹/₃ Pop. trend: unknown
[Hippocampus trimaculatus](#) (Three-spot Seahorse) ¹/₃ Status: Vulnerable A2bed+4bed ver 3.1 ¹/₃ Pop. trend: decreasing
[Hippocampus whitei](#) (White's Seahorse) ¹/₃ Status: Data Deficient ver 3.1 ¹/₃ (needs updating) ¹/₃ Pop. trend: unknown
[Hippocampus zebra](#) (Zebra Seahorse) ¹/₃ Status: Data Deficient ver 3.1 ¹/₃ (needs updating) ¹/₃ Pop. trend: unknown
[Hippocampus zosterae](#) (Dwarf Seahorse) ¹/₃ Status: Data Deficient ver 3.1 ¹/₃ (needs updating) ¹/₃ Pop. trend: unknown

CITES

<https://cites.org/eng>

CITES stands for the Convention on International Trade in Endangered Species of Wild Fauna and Flora and is a multilateral agreement between a majority of countries to regulate the trade in plants and animals to ensure that trade does not affect wild populations. In 2004, many species of seahorse joined the ever-growing list of species that need protection due to unsustainable collection and harvest.

CITES works through 3 appendices (lists of species). Appendix I contain species that are threatened with extinction. Appendix II is for species that may not necessarily be threatened with extinction, however if their trade is not regulated then they will become at risk of extinction; seahorses have been placed in this category. Appendix III contains species that have national protection in at least one country.

For more details on CITES please see:-

<https://www.cites.org/eng/app/appendices.php>

<https://www.cites.org/eng/disc/parties/chronolo.php>

Appendices I, II and III

Appendices I, II and III to the Convention are lists of species afforded different levels or types of protection from over-exploitation.

Appendix I lists species that are the most endangered among CITES-listed animals and plants (see [Article II, paragraph 1](#) of the Convention). They are threatened with extinction and CITES prohibits international trade in specimens of these species except when the purpose of the import is not commercial (see [Article III](#)), for instance for scientific research. In these exceptional cases, trade may take place provided it is authorized by the granting of both an import permit and an export permit (or re-export certificate). [Article VII](#) of the Convention provides for a number of exemptions to this general prohibition. Appendix II lists species that are not necessarily now threatened with extinction but that may become so unless trade is closely controlled. It also includes so-called "look-alike species", i.e. species whose specimens in trade look like those of species listed for conservation reasons (see [Article II, paragraph 2](#) of the Convention). International trade in specimens of Appendix-II species may be authorized by the granting of an export permit or re-export certificate. No import permit is necessary for these species under CITES (although a permit is needed in some countries that have taken stricter measures than CITES requires). Permits or certificates should only be granted if the relevant authorities are satisfied that certain conditions are met, above all that trade will not be detrimental to the survival of the species in the wild. (See [Article IV](#) of the Convention)

Appendix III is a list of species included at the request of a Party that already regulates trade in the species and that needs the cooperation of other countries to prevent unsustainable or illegal exploitation (see [Article II, paragraph 3](#), of the Convention). International trade in specimens of species listed in this Appendix is allowed only on presentation of the appropriate permits or certificates. (See [Article V](#) of the Convention)

Species may be added to or removed from Appendix I and II, or moved between them, only by the Conference of the Parties, either at its regular meetings or by postal procedures (see [Article XV](#) of the Convention). But species may be added to or removed from Appendix III at any time and by any Party unilaterally (although the Conference of the Parties has recommended that changes be timed to coincide with amendments to Appendices I and II).

The names of species in the Appendices may be annotated to qualify the listing. For example, separate populations of a species may have different conservation needs and be included in different Appendices (e.g. the wolf populations included in Appendix I are only those of Bhutan, India, Nepal and Pakistan, whereas all others are included in Appendix II). Such specifications can appear next to the species name or in the [Interpretation](#) section. For this reason, the Appendices should always be consulted alongside the [Interpretation](#) with which they are presented.

Article IV

[All trade in specimens of species included in Appendix II](#)

[Regulation of Trade in Specimens of Species included in Appendix II](#)

All trade in specimens of species included in Appendix II shall be in accordance with the provisions of this article.

The export of any specimens included in Appendix II shall require the prior grant and presentation of an export permit. An export permit shall only be granted when the following criteria have been met.

A scientific authority of the state of export has advised that such export will not be detrimental to the survival of that species.

A management authority of the state of export is satisfied that the specimen was not obtained in contravention of the laws of that state for the protection of fauna and flora, and

A management Authority of the State of export is satisfied that any living specimen will be so prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment.

A scientific authority in each party shall monitor the export permits granted by that state for specimens of species included in Appendix II and the actual exports of such specimens. Whenever a scientific authority determines that the export of specimens of any such species should be limited in order to maintain that species throughout its range at a level consistent within its role in the ecosystems in which it occurs and well above the level at which that species might become eligible for inclusion in Appendix I, the scientific authority shall advise the appropriate management authority of suitable measures to be taken to limit the grant of export permits for specimens of that species.

The import of any specimen of a species included in Appendix II shall require the prior presentation of either an export permit or a re-export certificate.

The re-export of any specimen of a species included in Appendix II shall require the prior grant and presentation of a re-export certificate. A re-export certificate shall only be granted when the following conditions have been met.

A management authority of the state of re-export is satisfied that the specimen was imported into that state in accordance with the provisions of the present convention, and

A management authority of the state of re-export is satisfied that any living specimen will be so prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment

The introduction from the sea of any specimen of a species included in Appendix II shall require the prior grant of a certificate from a management authority of the state of introduction.

A certificate shall only be granted when the following conditions have been met:

A scientific authority of the state of introduction advises that the introduction will not be detrimental to the survival of the species involved, and

A management authority of the state of introduction is satisfied that any living specimen will be so handled as to minimize the risk of injury, damage to health or cruel treatment

Certificates referred to in paragraph 6 of this article may be granted on the advice of a scientific authority, in consultation with other national scientific authorities, or when appropriate, international scientific authorities, in respect of periods not exceeding one year for total numbers of specimens to be introduced in such periods

Seahorses and CITES

All seahorse species fall under Appendix II and as such are liable to the regulations of article IV, which greatly limits and restricts the trade in seahorses unless they are accompanied by a CITES permit.

There is no case where a CITES permit is not required for export, import, re-export or re-import of any seahorse, alive or dead, in part or as a whole.

As such all trade in seahorses require a CITES permit and authorisation by a scientific or management authority.

Sent with [Proton Mail](#) secure email.

There is every good reason to suggest they do this every winter. Many thanks for the email and the map (of *Rampion 2* search area) and yes indeed that area has a high concentration of seahorses in it, especially during the winter, where the Short Snouted Seahorse (*Hippocampus hippocampus*) in particular over winters. In one winter we had 172 records, near to that area and there is no reason to suggest that numbers are not the same in that boxed area.”



Further information from theseahorsetrust.org:

“In 2008, both British seahorses were protected as named species under the Wildlife and Countryside Act (1981 as amended) as a direct result of our survey work and the World Seahorse Database (WSD). This was as a result and the hard work of the 5,000+ volunteers who have helped us since the start of the survey. We owe them a massive vote of thanks for all their hard work.

Another achievement was the banning, in 2010 of the use of flash photography on welfare grounds. After 47 years of experience, we knew flash photography is harmful and can kill seahorses.

It is now illegal to kill, take or disturb seahorses in British waters. The habitat where seahorses are found is also protected which means that if you find a seahorse in a seagrass bed, that seagrass bed is protected. This is good news for the seahorses and other species that live there.

Due to our knowledge of British seahorses, we have advised many governments, including the British government, through its departments such as Natural England, Joint Nature

Conservation Committee (JNCC) and Department For Environment and Rural Affairs (DEFRA), amongst others. We also helped to shape the seahorse licence that is required from MMO to set up seahorse surveys in our waters.”

Following this is further supporting evidence. Please feel free to make contact for more information if necessary.

Sincerely,

Elizabeth Marogna

IP no 20045425

Included below:

- 1) Seahorse status under the Wildlife Countryside Act (1981)
- 2) the Precautionary Principle which is enshrined in law
- 3) IUCN and CITES article

Attached:

- 1) Hippocampus hippocampus Fact Sheet
- 2) Hippocampus guttulatus Fact Sheet

Inclusions:

- 1) *Wildlife and Countryside Act (as amended 1981)*

http://jncc.defra.gov.uk/PDF/waca1981_schedule5.pdf <http://jncc.defra.gov.uk/page-3408>

The Wildlife and Countryside Act became part of national law in 1981 (as amended) to protect wildlife and habitats (and includes the intentions of the BERN Convention). It took many years for seahorses to be recognised through this legislation, added on the 6th of April 2008 and they have been listed in Schedule 5 section 9.

The Seahorse Trust got them added on the 6th of April 2008 after 6 years of lobbying and submission of data following on from work of their British Seahorse Survey (BSS) and data submitted to the National Seahorse Database (NSD) run and organised by The Seahorse Trust.

There are five sections, made up of 6 parts of the WCA Act and schedule 5, section 9 that are of importance to our native seahorse species and their place of shelter and it clearly states:-

The WCA schedule 5, section 9 states, it is illegal to:

Section 9

Part 1	intentional killing, injuring, taking
Part 2	possession or control (live or dead animal, part or derivative)
Part 4 (a)	damage to, destruction of, obstruction of access to any structure or place used by a scheduled animal for shelter or protection
Part 4 (b)	disturbance of animal occupying such a structure or place
Part 5 (a)	selling, offering for sale, possessing or transporting for the purpose of sale (live or dead animal, part or derivative)
Part 5 (b)	advertising for buying or selling such things

The Wildlife and Countryside Act 1981

The Wildlife and Countryside Act 1981 consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the conservation of wild birds (Birds Directive) in Great Britain (NB Council Directive 79/409/EEC has now been replaced by Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version)). Equivalent provisions for Northern Ireland are contained within the Wildlife (Northern Ireland) Order 1985 and the Nature Conservation and Amenity Lands (Northern Ireland) Order 1985.

The Act received royal assent on 30 October 1981. It is supplemented by the Wildlife and Countryside (Service of Notices) Act 1985, which relates to notices served under the 1981 Act. Various amendments have occurred since the original enactment, some of the most significant being via the

- Wildlife and Countryside (Amendment) Act 1985,
- Wildlife and Countryside (Amendment) Act 1991,
- Countryside and Rights of Way (CRoW) Act 2000 (in England and Wales),

- Wildlife and Countryside Act 1981 (Amendment) (Scotland) Regulations 2001,
- Wildlife and Countryside Act 1981(England and Wales) (Amendment) Regulations 2004,
- Wildlife and Countryside Act 1981 (Amendment) (Wales) Regulations 2004,
- Nature Conservation (Scotland) Act 2004 (in Scotland),
- Equivalent provisions for Northern Ireland are contained within the Wildlife (Northern Ireland) Order 1985 and the Nature Conservation and Amenity Lands (Northern Ireland) Order 1985
- and the Natural Environment and Rural Communities Act 2006 (in England and Wales).

There are also numerous country-specific Orders pertaining to Variation of Schedules of the Act.

In Northern Ireland legislative amendments have taken place through the Wildlife (Amendment) (Northern Ireland) Order 1995 and the Environment (Northern Ireland) Order 2002.

The original Wildlife and Countryside Act 1981 text is available and an updated version is available on Legislation.gov.uk website.

There is also a statutory five-yearly review of Schedules 5 and 8 (protected wild animals and plants respectively) and period review of Schedule 9 (in relation to non-native

species). These reviews are undertaken by the country agencies and coordinated by JNCC. Containing four Parts and 17 Schedules, the Act covers protection of wildlife (birds, and some animals and plants), the countryside, National Parks, and the designation of protected areas, and public rights of way. (Further details on the Schedules>>>>)

Wildlife - other animals

The Act makes it an offence (subject to exceptions) to intentionally (or recklessly] - only under the Nature Conservation (Scotland) Act 2004) kill, injure or take any wild animal listed on Schedule 5, and prohibits interference with places used for shelter or protection, or intentionally disturbing animals occupying such places. The Act also prohibits certain methods of killing, injuring, or taking wild animals.

Quinquennial Review

Every five years, the statutory nature conservation agencies Natural England, Natural Resources Wales (formally Countryside Council for Wales) and Scottish Natural Heritage, working jointly through the Joint Nature Conservation Committee (JNCC), are required to

review Schedules 5 and 8 of the Wildlife and Countryside Act 1981, and to make recommendations to the Secretary of State and Ministers for the Environment. Schedule 5 lists animals (other than birds) which are specially protected, and Schedule 8 lists plants (vascular plants, bryophytes, lichens and fungi) which are specially protected.

The statutory nature conservation bodies and JNCC prepare recommendations which are sent to the Joint Committee for approval prior to being submitted as JNCC advice to Defra and the Devolved Administrations in Great Britain.

There have been five QQRs and recommendations from the sixth QQR are under review. 5th QQR was submitted by JNCC in 2008. Defra and the Welsh Government responded to these recommendations in 2010.

Sites of Special Scientific Interest and other protected areas

Sections 28 to 33 of Part 2 of the Wildlife and Countryside Act detail the law regarding SSSIs. See Sites of Special Scientific Interest. Sections 34 to 53 deal with other protected areas within Great Britain.

The Act provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs) – these sites are identified for their flora, fauna, geological or physiographical features – by the country conservation bodies in England (Natural England) and Wales (Natural Resources Wales). (NB In Scotland similar powers are afforded to Scottish Natural Heritage under the Nature Conservation (Scotland) Act 2004 and in Northern Ireland the Council for Nature Conservation and the Countryside have powers under the Environment (Northern Ireland) Order 2002) to designate Areas of Special Scientific Interest (ASSIs).

A notification must be served on the relevant local planning authority, all land owners and occupiers, and the Secretary of State, specifying the time period within which representations and objections may be made. The country conservation bodies must consider these responses and may withdraw or confirm the notification, with or without amendment. The Act also contains measures for the protection and management of SSSIs.

The Act provides for the making of Limestone Pavement Orders, which prohibit the disturbance and removal of limestone from such designated areas, and the designation of Marine Nature Reserves. The Act prohibits the undertaking of agricultural or forestry operations on land within National Parks which has been either moor or heath for 20 years, without consent from the relevant planning authority. Planning authorities are also required to make available to the public up to date maps of moor and heath land within National Parks, which are important for the conservation of natural beauty.

<http://www.ukwildlife.com/index.php/wildlife-countryside-act-1981/schedule-5/section-9-1a/>

<http://www.ukwildlife.com/index.php/wildlife-countryside-act-1981/schedule-5/>

Short Snouted Seahorse *Hippocampus hippocampus* 2008 With respect to England and, since 12/8/2008, Wales

Spiny Seahorse Hippocampus guttulatus 2008 With respect to England and, since 12/8/2008, Wales

2) Precautionary Principle

<http://jncc.defra.gov.uk/default.aspx?page=2519>

<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM:l32042>

Introduction

The Precautionary Principle is one of the key elements for policy decisions concerning environmental protection and management. It is applied in the circumstances where there are reasonable grounds for concern that an activity is, or could, cause harm but where there is uncertainty about the probability of the risk and the degree of harm.

The Precautionary Principle has been endorsed internationally on many occasions. At the Earth Summit meeting at Rio in 1992, World leaders agreed Agenda 21, which advocated the widespread application of the Precautionary Principle in the following terms:

'In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.' (Principle 15)

In Fisheries Management this precautionary approach has been defined in two international instruments:

The Food and Agriculture Organisation of the United Nations (FAO) Code of Conduct for Responsible Fisheries (CCRF); and the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNIA).

Both of these share common wording and ideas. The wording used in the CCRF is:

'States should apply the precautionary approach widely to conservation, management and exploitation of living aquatic resources in order to protect them and preserve the aquatic environment. The absence of adequate scientific information should not be used as a reason for postponing or failing to take conservation and management measures.'

The CCRF is a voluntary, non-binding agreement, while the UNIA is now a binding agreement amongst signatory States and entered into force on 11 December 2001.

If there is good reason to suspect a species is in danger or it is being threatened, the authorities can invoke the Precautionary Principle which is in British Law and mentioned in European law. <http://jncc.defra.gov.uk/default.aspx?page=2519>

It can be used to support existing legislation and to intervene if there is good reason to be concerned for example as in the case of Studland Bay where the seahorse numbers dropped

from 40 known individuals down to zero in a few years. (Sadly it was never enforced at Studland). This course of action should have been put into place when data was presented showing a disturbing decline in population numbers.

Precautionary Principle and the European Union

The EC Treaty contains a reference to the Precautionary Principle, but does not define it. The Council sought clarification by requesting the Commission to develop clear and effective guidelines for the application of the principle.

In 2000, the European Commission adopted a Communication on the use of the Precautionary Principle, which set out a number of steps to be followed. These were:

if a preliminary scientific evaluation shows that there are reasonable grounds for concern that a particular activity might lead to damaging effects on the environment, or on human, animal or plant health, which would be inconsistent with the protection normally afforded to these within the European Community, the Precautionary Principle is triggered;

Decision-makers then have to determine what action to take. They should take account of the potential consequences of taking no action, the uncertainties inherent in the scientific evaluation, and they should consult interested parties on the possible ways of managing the risk. Measures should be proportionate to the level of risk, and to the desired level of protection. They should be provisional in nature pending the availability of more reliable scientific data; action is then undertaken to obtain further information enabling a more objective assessment of the risk. The measures taken to manage the risk should be maintained so long as the scientific information remains inconclusive and the risk unacceptable.

European implementation

The European Community is in the process of integrating the Precautionary Principle into the Common Fisheries Policy (CFP).

Following a request from the European Commission, the International Council for the Exploration of the Sea (ICES) have developed a procedure for implementing a precautionary approach in its advice to the Commission on fish stocks and future catch levels. This is done by setting reference points - in effect trigger levels at which management action should be taken. ICES identify two types of reference points: 'limit' and 'precautionary'. The intention is that fish stocks are managed so they do not exceed the precautionary limit reference point. Fisheries managers can, therefore, be reasonably confident that limit reference points - at which there is a serious risk of stock collapse - are never reached.

The precautionary reference figures produced by ICES are used by Member States to negotiate catch quotas. Unfortunately, these negotiations often result in quotas exceeding the ICES recommendations. Many fish stocks are now at levels below the precautionary

reference point and some are below the limit reference point, thereby requiring drastic recovery plans.

Limitations of the precautionary approach as currently applied

Current action is far from being effectively precautionary: catch quotas tend to be set too high, and neither allowable catch nor recorded landings reflect actual mortality. Catch quotas are set a target for 'catch' which only relates to what is officially landed. Other unquantified elements of mortality arise through (i) bycatches, (ii) discards, and (iii) misreported landings. The incentives for fishermen 'at the point of catch' are inconsistent with the overall objective of sustainable use for the fishery as a whole. In the mixed demersal fishery of most European waters, this creates huge wastage of fish through the anomalous incentive for fishers to catch and discard species which have reached their catch quota for the year, and only land the most marketable individuals of species which are below the catch quota; the approach has only been applied to a selected sub-set of commercial fish stocks for which ICES advice has been requested. Stocks of other species have not yet received such consideration, for example, sharks, rays and many deep-water species whose stocks are particularly sensitive to fishing; the precautionary approach, as currently applied, does not address the wider effects of fisheries on the ecosystem and marine environment. There is compelling scientific evidence to introduce measures to reduce cetacean (specifically harbour porpoise) bycatch, and to better protect sensitive offshore habitats such as *Lophelia* reefs.

These latter issues may be addressed through an ecosystem-based approach to fisheries management and wildlife conservation. This aims to protect or restore the function, structure, and species composition of an ecosystem while providing for its sustainable socio-economic use. However, quite clearly, the current implementation of the Precautionary Principle in relation to fisheries management is partial and inadequate.

Effective precautionary approaches

For all fisheries, assessing the need for closer oversight of actual fish mortality rather than landings, this may involve more effective monitoring of fishing effort at sea - e.g. via broadening the use of vessel monitoring systems and assessing the need to decrease outputs (i.e. lower catch limits) especially for fisheries at the limit.

Another widening approach could be taken through input controls - e.g. through spatial management using permanent and temporary exclusion zones, or by limiting days at sea. Considering the need to develop indicators (both for the fishery and for the wider environment) to provide feedback on the effects of fishing activity; reviewing the responsiveness of existing management structures to different interests; non-quota and new fisheries should be the subject of environmental assessment and improved methods of control; habitats and species afforded strict protection under EC legislation should be subject to a high level of precaution.

Strategic implications

In the longer term, they see the need to build confidence amongst all interest groups that a sustainable fishery is a desirable outcome. This will include removing the fear of 'precaution' as a management principle, encouraging confidence that precaution will not be used unreasonably to restrict sustainable fishing activity, and thereby create a permissive environment for decision-makers to take precautionary decisions.

They see the need to move towards management regimes which reward, and foster the values of, good stewardship. The effectiveness of precaution will be greatly enhanced where it reinforces this kind of ownership and stewardship of the resource. Under these circumstances precautionary measures are more likely to be widely supported and implemented by fishermen, meanwhile reducing reliance on stringent (and costly) enforcement mechanisms.

Further reading

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3) [IUCN Red List of Threatened Species](#)

<http://www.iucnredlist.org/about/introduction>

[Introduction](#)

The [IUCN Global Species Programme](#) working with the [IUCN Species Survival Commission](#) (SSC) has been assessing the conservation status of species, subspecies, varieties, and even selected subpopulations on a global scale for the past 50 years in order to highlight taxa threatened with extinction, and thereby promotes their conservation.

Although today they are operating in a very different political, economic, social and ecological world from that when the first IUCN Red Data Book was produced, the IUCN Global Species Programme, working with the Species Survival Commission and many partners, remains firmly committed to providing the world with the most objective, scientifically-based information on the current status of globally threatened biodiversity.

[Red list of threatened species](#)

The IUCN Red List of Threatened Species™ is widely recognized as the most comprehensive, objective global approach for evaluating the conservation status of plant and animal species.

The plants, fungi and animals assessed for The IUCN Red List are the bearers of genetic diversity and the building blocks of ecosystems, and information on their conservation status and distribution which provides the foundation for making informed decisions about conserving biodiversity from local to global levels.

The IUCN Red List of Threatened Species™ provides taxonomic, conservation status and distribution information on plants, fungi and animals that have been globally evaluated using the [IUCN Red List Categories and Criteria](#). This system is designed to determine the relative risk of extinction, and the main purpose of the IUCN Red List is to catalogue and highlight those plants and animals that are facing a higher risk of global extinction (i.e. those listed as **Critically Endangered**, **Endangered** and **Vulnerable**). The IUCN Red List also includes information on plants, fungi and animals that are categorized as **Extinct** or **Extinct in the Wild**; on taxa that cannot be evaluated because of insufficient information (i.e., are **Data Deficient**); and on plants, fungi and animals that are either close to meeting the threatened thresholds or that would be threatened were it not for an ongoing taxon-specific conservation programme (i.e., are **Near Threatened**).

NB

It is important to note that just because a species is not on the 'Extinction Risk' section of the chart below, does not mean it is not at risk. It could be that due to a lack of data its exact determination and status is not known. On the chart below it shows a direct link (in red) from Data Deficient to Endangered in the Extinction risk section.

Plants, fungi and animals that have been evaluated to have a low risk of extinction are classified as **Least Concern**. The Least Concern assessments did not appear on IUCN Red Lists produced before 2003 (except for a few that were listed in 1996) because the main focus of attention has been on threatened species. However, for the sake of transparency and to place threatened assessments in context, all Least Concern assessments are now included on The IUCN Red List. Thus, despite its title, The IUCN Red List of Threatened Species™ does not just focus on threatened species; it considers the status of all species across an increasing number of taxonomic groups. In the past, there has unfortunately been no formal reporting process to capture all the Least Concern assessments; hence the list of Least Concern species on The IUCN Red List is not comprehensive (i.e., many species have been assessed to be Least Concern, but as that information was never formally captured, the listings do not appear on the Red List).

The IUCN Global Species Programme maintains the information behind The IUCN Red List in a centralized database as part of the [Species Information Service \(SIS\)](#). An extract of that information is made publicly available via a searchable database on their web site. Only a small number of the world's plant, fungi and animal species have been assessed. In addition to the many thousands of species which have not yet been assessed (i.e., are **Not Evaluated**), other species that are not included on The IUCN Red List are those that went extinct before 1500 AD and **Least Concern** species that have not yet been data based. The species groups that have been comprehensively assessed include the amphibians, birds, mammals, freshwater crabs, warm-water reef building corals, conifers and cycads. The vast majority of plants listed in the [1997 IUCN Red List of Threatened Plants](#) have not yet been evaluated against the [revised Red List Criteria](#) and are therefore not included.

In-depth analyses of the data contained in the IUCN Red List is published periodically (usually at least once every four years). The results of these analyses are made available in publications which are made freely available via the Publications page of their website.

The Red List of species provides details on the conservation status and global distribution of over 76,000 species along with taxonomic details to support the protection of these species for the future. By assessing species and providing this information, the Red List aims to provide enough background to allow informed decisions to be made on an international, national and local level as regards the protection and conservation of the world's biodiversity. There are still many species to be assessed, mostly due to the lack of data available on them and this includes many species of seahorse.

Seahorses on the IUCN Red List

Seahorse classification is ongoing and new species are being named all the time and as such not all species are listed or represented here.

[Hippocampus abdominalis](#) (Pot-bellied Seahorse) Status: Data Deficient ver 3.1 (needs updating) Pop. trend: unknown

[Hippocampus algiricus](#) (West African Seahorse) Status: Vulnerable A2cd+4cd ver 3.1 Pop. trend: unknown

[Hippocampus angustus](#) (Narrow-bellied Seahorse) Status: Data Deficient ver 3.1 (needs updating) Pop. trend: unknown

[Hippocampus barbouri](#) (Barbour's Seahorse) Status: Vulnerable A2cd+4cd ver 3.1 Pop. trend: decreasing

[Hippocampus bargibanti](#) (Bargibant's Seahorse) Status: Data Deficient ver 3.1 (needs updating) Pop. trend: unknown

[Hippocampus breviceps](#) (Short-snouted Seahorse) Status: Data Deficient ver 3.1 (needs updating) Pop. trend: unknown

[Hippocampus camelopardalis](#) (Giraffe Seahorse) Status: Data Deficient ver 3.1 (needs updating) Pop. trend: unknown

[Hippocampus capensis](#) (Knysna Seahorse) Status: Endangered B1ab(i,ii,iii,iv)c(ii)+2ab(i,ii,iii,iv)c(ii) ver 3.1 Pop. trend: unknown

[Hippocampus comes](#) (Tiger Tail Seahorse) Status: Vulnerable A2bd+4bd ver 3.1 Pop. trend: decreasing

[Hippocampus coronatus](#) (High-crowned Seahorse) Status: Data Deficient ver 3.1 Pop. trend: unknown

[Hippocampus denise](#) (Denise's Pygmy Seahorse) Status: Data Deficient ver 3.1 (needs updating) Pop. trend: unknown

[Hippocampus erectus](#) (Lined Seahorse) Status: Vulnerable A4cd ver 3.1 (needs updating) Pop. trend: decreasing

[Hippocampus fisheri](#) (Hawaiian Seahorse) Status: Data Deficient ver 3.1 (needs updating) Pop. trend: unknown

[Hippocampus guttulatus](#) (Long-snouted Seahorse) Status: Data Deficient ver 3.1 Pop. trend: unknown

[Hippocampus haema](#) (Korean Seahorse) Status: Data Deficient ver 3.1 Pop. trend: unknown

[Hippocampus hippocampus](#) (Short-snouted Seahorse) Status: Data Deficient ver 3.1
Pop. trend: unknown

[Hippocampus histrix](#) (Thorny Seahorse) Status: Vulnerable A2cd+4cd ver 3.1 Pop.
trend: decreasing

[Hippocampus ingens](#) (Giant Seahorse) Status: Vulnerable A2cd+4cd ver 3.1 Pop.
trend: decreasing

[Hippocampus jayakari](#) (Jayakar's Seahorse) Status: Data Deficient ver 3.1 (needs
updating) Pop. trend: unknown

[Hippocampus kelloggi](#) (Great Seahorse) Status: Vulnerable A2d+4d ver 3.1 Pop.
trend: decreasing

[Hippocampus kuda](#) (Spotted Seahorse) Status: Vulnerable A2cd+3cd+4cd ver 3.1
Pop. trend: decreasing

[Hippocampus minotaur](#) (Bullneck Seahorse) Status: Data Deficient ver 3.1 (needs
updating) Pop. trend: unknown

[Hippocampus mohnikei](#) (Japanese Seahorse) Status: Data Deficient ver 3.1 (needs
updating) Pop. trend: unknown

[Hippocampus planifrons](#) (Flatface Seahorse) Status: Vulnerable A2cd ver 2.3 (needs
updating)

[Hippocampus pontohi](#) (Pontoh's Pygmy Seahorse) Status: Data Deficient ver 3.1
Pop. trend: unknown

[Hippocampus reidi](#) (Long-snout Seahorse) Status: Data Deficient ver 3.1 (needs
updating) Pop. trend: unknown

[Hippocampus satomiae](#) (Satomi's Pygmy Seahorse) Status: Data Deficient ver 3.1
Pop. trend: unknown

[Hippocampus sindonis](#) (Sindo's Seahorse) Status: Least Concern ver 3.1 Pop. trend:
unknown

[Hippocampus spinosissimus](#) (Hedgehog Seahorse) Status: Vulnerable A2d+4d ver
3.1 Pop. trend: decreasing

[Hippocampus subelongatus](#) (West Australian Seahorse) Status: Data Deficient ver 3.1
(needs updating) Pop. trend: unknown

[Hippocampus trimaculatus](#) (Three-spot Seahorse) Status: Vulnerable A2bcd+4bcd
ver 3.1 Pop. trend: decreasing

[Hippocampus whitei](#) (White's Seahorse) Status: Data Deficient ver 3.1 (needs updating) Pop. trend: unknown

[Hippocampus zebra](#) (Zebra Seahorse) Status: Data Deficient ver 3.1 (needs updating) Pop. trend: unknown

[Hippocampus zosterae](#) (Dwarf Seahorse) Status: Data Deficient ver 3.1 (needs updating) Pop. trend: unknown

CITES

<https://cites.org/eng>

CITES stands for the Convention on International Trade in Endangered Species of Wild Fauna and Flora and is a multilateral agreement between a majority of countries to regulate the trade in plants and animals to ensure that trade does not affect wild populations. In 2004, many species of seahorse joined the ever-growing list of species that need protection due to unsustainable collection and harvest.

CITES works through 3 appendices (lists of species). Appendix I contain species that are threatened with extinction. Appendix II is for species that may not necessarily be threatened with extinction, however if their trade is not regulated then they will become at risk of extinction; seahorses have been placed in this category. Appendix III contains species that have national protection in at least one country.

For more details on CITES please see:-

<https://www.cites.org/eng/app/appendices.php>

<https://www.cites.org/eng/disc/parties/chronolo.php>

[Appendices I, II and III](#)

[Appendices I, II and III](#) to the Convention are lists of species afforded different levels or types of protection from over-exploitation.

Appendix I lists species that are the most endangered among CITES-listed animals and plants (see [Article II, paragraph 1](#) of the Convention). They are threatened with extinction and CITES prohibits international trade in specimens of these species except when the purpose of the import is not commercial (see [Article III](#)), for instance for scientific research. In these exceptional cases, trade may take place provided it is authorized by the granting of both an import permit and an export permit (or re-export certificate). [Article VII](#) of the Convention provides for a number of exemptions to this general prohibition.

Appendix II lists species that are not necessarily now threatened with extinction but that may become so unless trade is closely controlled. It also includes so-called "look-alike species", i.e. species whose specimens in trade look like those of species listed for conservation reasons (see [Article II, paragraph 2](#) of the Convention). International trade in specimens of Appendix-II species may be

authorized by the granting of an export permit or re-export certificate. No import permit is necessary for these species under CITES (although a permit is needed in some countries that have taken stricter measures than CITES requires). Permits or certificates should only be granted if the relevant authorities are satisfied that certain conditions are met, above all that trade will not be detrimental to the survival of the species in the wild. (See [Article IV](#) of the Convention)

Appendix III is a list of species included at the request of a Party that already regulates trade in the species and that needs the cooperation of other countries to prevent unsustainable or illegal exploitation (see [Article II, paragraph 3](#), of the Convention). International trade in specimens of species listed in this Appendix is allowed only on presentation of the appropriate permits or certificates. (See [Article V](#) of the Convention)

Species may be added to or removed from Appendix I and II, or moved between them, only by the Conference of the Parties, either at its regular meetings or by postal procedures (see [Article XV](#) of the Convention). But species may be added to or removed from Appendix III at any time and by any Party unilaterally (although the Conference of the Parties has recommended that changes be timed to coincide with amendments to Appendices I and II).

The names of species in the Appendices may be annotated to qualify the listing. For example, separate populations of a species may have different conservation needs and be included in different Appendices (e.g. the wolf populations included in Appendix I are only those of Bhutan, India, Nepal and Pakistan, whereas all others are included in Appendix II). Such specifications can appear next to the species name or in the [Interpretation](#) section. For this reason, the Appendices should always be consulted alongside the [Interpretation](#) with which they are presented.

[Article IV](#)

[All trade in specimens of species included in Appendix II](#)

[Regulation of Trade in Specimens of Species included in Appendix II](#)

- All trade in specimens of species included in Appendix II shall be in accordance with the provisions of this article.
- The export of any specimens included in Appendix II shall require the prior grant and presentation of an export permit. An export permit shall only be granted when the following criteria have been met.
 - A scientific authority of the state of export has advised that such export will not be detrimental to the survival of that species.
 - A management authority of the state of export is satisfied that the specimen was not obtained in contravention of the laws of that state for the protection of fauna and flora, and
 - A management Authority of the State of export is satisfied that any living specimen will be so prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment.
- A scientific authority in each party shall monitor the export permits granted by that state for specimens of species included in Appendix II and the actual exports of such specimens. Whenever a scientific authority determines that the export of specimens of any such species should be limited in order to maintain that species throughout its range at a level consistent within its role in the ecosystems in which it occurs and well above the level at which that species might become eligible for inclusion in Appendix I, the scientific

authority shall advise the appropriate management authority of suitable measures to be taken to limit the grant of export permits for specimens of that species.

- The import of any specimen of a species included in Appendix II shall require the prior presentation of either an export permit or a re-export certificate.
- The re-export of any specimen of a species included in Appendix II shall require the prior grant and presentation of a re-export certificate. A re-export certificate shall only be granted when the following conditions have been met.
 - A management authority of the state of re-export is satisfied that the specimen was imported into that state in accordance with the provisions of the present convention, and
 - A management authority of the state of re-export is satisfied that any living specimen will be so prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment
- The introduction from the sea of any specimen of a species included in Appendix II shall require the prior grant of a certificate from a management authority of the state of introduction.
A certificate shall only be granted when the following conditions have been met:
 - A scientific authority of the state of introduction advises that the introduction will not be detrimental to the survival of the species involved, and
 - A management authority of the state of introduction is satisfied that any living specimen will be so handled as to minimize the risk of injury, damage to health or cruel treatment
 - Certificates referred to in paragraph 6 of this article may be granted on the advice of a scientific authority, in consultation with other national scientific authorities, or when appropriate, international scientific authorities, in respect of periods not exceeding one year for total numbers of specimens to be introduced in such periods

[Seahorses and CITES](#)

All seahorse species fall under Appendix II and as such are liable to the regulations of article IV, which greatly limits and restricts the trade in seahorses unless they are accompanied by a CITES permit.

There is no case where a CITES permit is not required for export, import, re-export or re-import of any seahorse, alive or dead, in part or as a whole.

As such all trade in seahorses require a CITES permit and authorisation by a scientific or management authority.

Fact Sheet

SPINY SEAHORSE

Main images courtesy and copyright of The Seahorse Trust © 2015

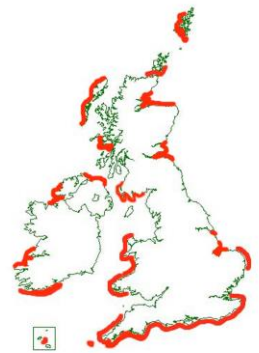


Seahorses are fish and a very unusual fish they are indeed. They do not swim like traditional fish and they do not have scales but they are unique in having a prehensile tail to hold on in the strongest of storms and can change colour like a Chameleon. Below are some amazing facts about Spiny Seahorses.



www.theseahorsetrust.org

DISTRIBUTION (UK)



PROTECTION STATUS

In the UK

Wildlife and Countryside Act (1981) schedule 5, section 9

CITES

Under CITES they are listed as Appendix II and are listed as Data Deficient

BASIC FACTS ABOUT SPINY SEAHORSES

Name	The Latin name for Seahorses is <i>Hippocampus</i> which means <i>Hippo</i> = horse and <i>campe</i> meaning, caterpillar or monster.
Diet	They have voracious appetites and eat a wide variety of crustacea such as small shrimp and crabs.
Population	All around the UK, as high as the Shetland Isles, through the Bay of Biscay and into the Mediterranean.
Reproduction	Amazingly it is the male that gets pregnant and gives birth; so why is he still the male? Well he still has testes and the female still has ovaries and produces the eggs.

FAST FACTS

Size	Normally up to 16 or 18cms but the largest one ever found was 34 cm in Poole Harbour in Dorset
Lifespan	They are quite long lived for a small fish, up to 12 years
Colour	Just like a Chameleon they can change colour to suit their mood and the habitat they live in

Fact Sheet

SHORT SNOUTED SEAHORSE

Main images courtesy and copyright of John Newman © 2015



Seahorses are fish and a very unusual fish they are indeed. They do not swim like traditional fish and they do not have scales but they are unique in having a prehensile tail to hold on in the strongest of storms and can change colour like a Chameleon. Below are some amazing facts about Short Snouted Seahorses.



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DISTRIBUTION (UK)



PROTECTION STATUS

In the UK

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CITES

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BASIC FACTS SHORT SNOUTED SEAHORSES

Name	The Latin name for Seahorses is <i>Hippocampus</i> which means <i>Hippo</i> = horse and <i>campe</i> meaning, caterpillar or monster.
Diet	They have voracious appetites and eat a wide variety of crustacea such as small shrimp and crabs.
Population	All around the UK, as high as the Shetland Isles, through the Bay of Biscay and into the Mediterranean.
Reproduction	Amazingly it is the male that gets pregnant and gives birth; so why is he still the male? Well he still has testes and the female still has ovaries and produces the eggs.

FAST FACTS

Size	Up to 14 to 16cms with a barrel chest and long slender tail, the snout is shorter and wider than the Spiny Seahorse (hence the name)
Lifespan	They are quite long lived for a small fish, up to 10 years but could be longer
Colour	Just like a Chameleon they can change colour to suit their mood and the habitat they live in