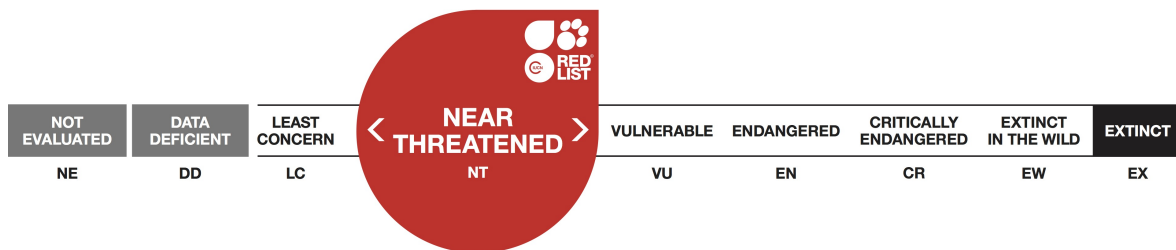


## *Sciaena umbra*, Brown Meagre

Assessment by: Chao, L.



View on [www.iucnredlist.org](http://www.iucnredlist.org)

**Citation:** Chao, L. 2015. *Sciaena umbra*. The IUCN Red List of Threatened Species 2015: e.T198707A83232286. <http://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T198707A83232286.en>

**Copyright:** © 2015 International Union for Conservation of Nature and Natural Resources

Reproduction of this publication for educational or other non-commercial purposes is authorized without prior written permission from the copyright holder provided the source is fully acknowledged.

Reproduction of this publication for resale, reposting or other commercial purposes is prohibited without prior written permission from the copyright holder. For further details see [Terms of Use](#).

The IUCN Red List of Threatened Species™ is produced and managed by the [IUCN Global Species Programme](#), the [IUCN Species Survival Commission \(SSC\)](#) and [The IUCN Red List Partnership](#). The IUCN Red List Partners are: [BirdLife International](#); [Botanic Gardens Conservation International](#); [Conservation International](#); [Microsoft](#); [NatureServe](#); [Royal Botanic Gardens, Kew](#); [Sapienza University of Rome](#); [Texas A&M University](#); [Wildscreen](#); and [Zoological Society of London](#).

If you see any errors or have any questions or suggestions on what is shown in this document, please provide us with [feedback](#) so that we can correct or extend the information provided.

## Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Actinopterygii	Perciformes	Sciaenidae

**Taxon Name:** *Sciaena umbra* Linnaeus, 1758

### Synonym(s):

- *Bairdiella umbra* (Linnaeus, 1758)
- *Coracinus chalcis* Pallas, 1814
- *Corvina canariensis* Cuvier, 1830
- *Corvina umbra* (Linnaeus, 1758)
- *Johnius umbra* (Linnaeus, 1758)
- *Sciaena nigra* Bloch, 1792

### Regional Assessments:

- [Mediterranean](#)
- [Europe](#)

### Common Name(s):

- English: Brown Meagre, Corb
- French: Corb, Corb Commun, Corb du Cameroun, Corb Noir, Vieille Noire
- Spanish: Corvallo, Corvina, Verrugato

### Taxonomic Source(s):

Eschmeyer, W.N. 2013. Catalog of Fishes. Available at: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>. (Accessed: 9 Sep 2013).

## Assessment Information

**Red List Category & Criteria:** Near Threatened [ver 3.1](#)

**Year Published:** 2015

**Date Assessed:** February 19, 2014

### Justification:

*Sciaena umbra* is found in the eastern Atlantic from the English Channel to Mauritania, including the Canary Islands, occasionally in Senegal, and questionably as far south as Ghana or Gabon. In European waters the species is found from the English Channel to the Mediterranean and to the Black Sea and the Sea of Azov. The majority of this species range occurs in European waters, where it is impacted by both commercial and recreational fishing and these threats are currently ongoing. The species is also impacted by the loss of important nursery estuarine habitat, as well as disturbance from divers and spear fisherman in some parts of its range. Based on FAO catch statistics available for part of its range in the Mediterranean Sea, the population showed declines of approximately 70% over a period of 25 years (1980-2005), assuming there was no decline in fishing effort over that time period, however more recent fisheries landing data (FAO 2011) show a fluctuating increase in landings from a low of c. 25

tonnes in 2001 to a maximum of c. 345 tonnes in 2010 (with a decline to c. 140 tonnes (incomplete data) for 2011). There are also sporadic but unquantified reports of population reduction (e.g., Artüz 2006) from other parts of its Mediterranean range, and these declines may be representative of the population across the Mediterranean Sea, though it may be stable in northern parts of the Mediterranean Sea. There are no decline or catch statistics available for the eastern Atlantic or Black Sea.

The species was regionally assessed as Vulnerable for the Mediterranean in 2007 (Biszel *et al.* 2011) based on reported FAO data on fishery declines for the period 1980-2005. More recent data show a fluctuating increase in reported landings figures. Whilst it is acknowledged that the species can attain moderately large sizes (up to 50-70 cm) and is highly targeted in artisanal, semi-commercial and recreational (sportfish) fisheries, this species has been shown to benefit from in-place conservation actions including no-take zone and marine protected areas (Di Franco *et al.* 2009, Forcada *et al.* 2009). Globally, this species is considered Near Threatened, as recent FAO data from the majority (European) portion of its range show substantial increase in landings, particularly for the Mediterranean region, suggesting that the species has undergone some degree of recovery since it was assessed at the Mediterranean scale in 2007. However, landing data has to be treated with caution as no fishery effort data are available. Population increases are inferred from the FAO landings data but require confirmation, and are likely to be conservation dependent, and significant declines might result from any removal of conservation actions or management protection.

## Geographic Range

### Range Description:

*Sciaena umbra* is found in the eastern Atlantic from the English Channel to Mauritania, including the Canary Islands, occasionally in Senegal, and questionably as far south as Ghana or Gabon. This species' main range within Europe is in the Mediterranean Sea, where it is found in all coastal areas. It is present but uncommon to rare in the eastern Atlantic, where it is found from the English Channel to Mauritania and occasionally southwards to Senegal. It is also present in the Black Sea and the Sea of Azov, and is recorded from the Macaronesian Islands (the Canary Islands).

Within the Mediterranean Sea, the species is widely distributed and has been recorded from the Spanish coasts (Sala 1997, Garcia Charton and Perez-Ruzafa 1999, Macpherson *et al.* 2002, Cruz and Lombarte 2004), the Balearic Islands (Deudero *et al.* 2004, 2008), the Gulf of Lion (Ruitton *et al.* 2000), the Ligurian Sea (Tunesi and Molinari 2005, Tunesi *et al.* 2005, Tunesi *et al.* 2006), the southern Tyrrhenian Sea (La Mesa and Vacchi 1999), the northern Adriatic Sea (Lipej *et al.* 2003, Dulcic and Glamuzina 2006), the southern Adriatic Sea (Bussotti *et al.* 2002), the Aegean Sea (Koutrakis and Tsikliris 2003, Ayaz *et al.* 2006, Karakulak *et al.* 2006) and Lebanese coasts (Harmelin-Vivien *et al.* 2005), and some main islands (Sicily and Sardinia).

### Country Occurrence:

**Native:** Albania; Algeria; Bosnia and Herzegovina; Bulgaria; Croatia; Cyprus; Egypt (Egypt (African part), Sinai); France (Corsica, France (mainland)); Gibraltar; Greece (East Aegean Is., Greece (mainland), Kriti); Guernsey; Israel; Italy (Italy (mainland), Sardegna, Sicilia); Jersey; Lebanon; Libya; Malta; Mauritania; Monaco; Montenegro; Morocco; Portugal (Portugal (mainland), Selvagens); Romania; Russian Federation (South European Russia); Senegal; Slovenia; Spain (Balears, Canary Is., Spain (mainland), Spanish North African Territories); Syrian Arab Republic; Tunisia; Turkey (Turkey-in-Asia, Turkey-in-

Europe); Ukraine (Krym, Ukraine (main part)); Western Sahara

**FAO Marine Fishing Areas:**

**Native:** Atlantic - northeast, Atlantic - eastern central, Mediterranean and Black Sea -

## Distribution Map

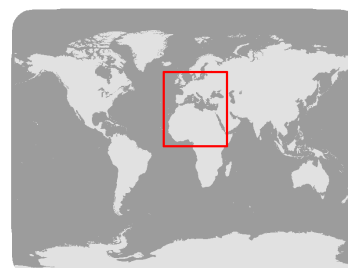


### *Sciaena umbra*

#### Range

Extant (resident)

Compiled by:  
International Union for  
Conservation of Nature



The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.



## Population

Population data are not available from across most of this species range, with most detailed information available for the Mediterranean Sea.

In the Mediterranean Sea, Food and Agriculture Organization (FAO) catch statistics are only reported from Turkey, Tunisia and Cyprus. These statistics indicate a decrease in landings from a peak of 735 t in 1988, followed by fluctuating declines to 161 t in 2005, with an average of 148 t in the period 2001 to 2005. This indicates an approximate 70% decline in landings over 25 years (1980-2005), which can be used for a proxy for a decline in population size, assuming that there was no reduction in fishing effort during this time. These trends may be representative of the whole of the Mediterranean Sea, though it may be more stable in some parts of the northern Mediterranean Sea. The species used to be relatively common in many areas in the Mediterranean in the 1970s compared to the present (A. Di Natale pers. comm. 2007). However more recent fisheries landing data (FAO 2011) show a fluctuating increase in landings from a low of c. 25 tonnes in 2001 to a maximum of c. 345 tonnes in 2010 (with a decline to c. 140 tonnes (incomplete data) for 2011).

Other records from the Mediterranean Sea include:

- Deudero *et al.* (2008) sampled this species in July, September, October and December 2002 (respectively with mean abundance from 0.1 to 0.5), with length varying from nine to 13 cm, over *Posidonia oceanica* beds at depths ranging from 11 to 38 m using a beam trawl.
- Karakulak *et al.* (2006) sampled 24 specimens (13.9 to 29.8 cm TL) from a survey conducted for selectivity by gill and trammel nets in the coastal waters of Turkey from March 2004 to February 2005.
- Dulcic and Glamuzina (2006) collected 39 specimens (18.1 to 41.4 cm TL) using various fishing gear (beach seine, fyke net, gill nets, fish traps) in three estuarine area of the River Mirna, northern Adriatic Sea.
- Cruz and Lombarte (2004) collected 15 specimens (15 to 49 cm TL) during sampling cruises in the Catalanian Sea and around the Balearic Islands (north-west Mediterranean Sea) between 1995 and 2003.
- Deudero *et al.* (2004) collected 13 specimens, with length varying from 28.7 to 44.5 cm TL, from three islands, Mallorca, Formentera and Menorca (north-west Mediterranean) during May, June and July 2000 and 2001. The Mallorca samples were taken with a gill-net, the Formentera samples were collected with an experimental beam-trawl and the Menorca samples with a long-line and gill-net. Sampling depth ranged from 15 to 35 m.

Artüz (2006) used angling and harpoon catch data to study the abundance and growth of the species from the northwest coast of the Marmara Sea. The species lives up to 20 years or 50 cm in the area, the subpopulation on the east side of the Marmara Sea was reduced due to pollution. Fishery landings reduced from over 700 to 140 tonnes between 2001 and 2005 in Turkey and adjacent areas. There are sporadic but unquantified reports of population reduction (e.g., Artüz 2006).

**Current Population Trend:** Decreasing

## Habitat and Ecology (see Appendix for additional information)

This is a demersal species that occurs in shallow coastal waters mainly on rocky and adjacent sandy substrata; it may be found from five to 200 m deep. It is a sedentary species with strong site-fidelity and low levels of mobility (Alós and Cabanellas-Reboredo 2012). Di Franco *et al.* (2009) found that the

species is an important component of Mediterranean rocky-reef fish assemblages.

This species is heavily exposed to fisheries during spawning aggregations at the mouth of estuaries. The young often enter estuaries and become more active at night. It is a nocturnal fish but it can sometimes be encountered during the day among seagrass beds, on rocky bottoms close to caves or large crevices in which it can shelter. It lives in small groups. The maximum size for this species is 75 cm (Dieuzeide *et al.* 1955).

It feeds on small fishes, crustaceans and algae (Engin and Seyhan 2009). SCUBA diving observations suggest this to be a very calm fish with remarkable buoyancy control and an ability to move without much apparent effort (Chauvet 1991). The reproductive period for this species is May-July; the spawning season in Balearic waters is from May to August. Size at first maturity was 25.4 cm of total length for males and 29.9 cm for females (Grau *et al.* 2009). The generation length is estimated at five years based on Mylonas *et al.* (2004) who used captive shi-drum (*Umbrina cirrosa*; four to five year old female and two to four year old male) for a reproductive biology study, and reported that shi-drum are ready to spawn at age four to five. In the wild, the first age of spawning is probably a year or so earlier (most sciaenids).

This species responds well to protection (marine protected areas and no-take zones; Di Franco *et al.* 2009) in the Mediterranean Sea.

**Systems:** Freshwater, Marine

## Use and Trade

This species is caught by artisanal and sport fisheries throughout its range; it is an esteemed food fish and a candidate for aquaculture development in Mediterranean Sea. This species is often found in the community tank of public aquariums in Europe (L.N. Chao pers. obs. 2005). Experimental aquaculture in Greece has shown the species can reach 400 g in 12 months, but it suffers from marine cage adaptation problems (Triantaphyllidis 2012). In Turkey, otoliths are ground to a powder and used as remedy for urinary tract infections (Frimodt 1995).

The fish is heavily targeted in its north African range where it is over-exploited by artisanal, semi-industrial and recreational fishing, and the fish is highly susceptible to spear fishing as it is slow moving and accessible (Grau *et al.* 2009).

## Threats (see Appendix for additional information)

This is a commercial species across its European range (including in the eastern Atlantic, the Black Sea, and especially in the Mediterranean Sea). Over-exploitation by fisheries is a major threat to this species. It is fished mainly by spear fishing, trammel nets and gill nets. This species is heavily exposed to fisheries during spawning aggregations at the mouth of estuaries. In addition to fishing pressure at its spawning grounds, degradation of estuaries from coastal development threatens the nursery grounds of this species.

As well as direct fishery exploitation, the species may also have been disturbed by divers and spear fishermen, forcing the animals to be less concentrated and much more dispersed in small coastal caves

and below rocks (A. Di Natale pers. comm. 2007).

This species is currently being researched for potential use in aquaculture (Chatzifotis *et al.* 2006).

## **Conservation Actions (see Appendix for additional information)**

The Brown Meagre is listed on Appendix III of the Bern Convention and on Annex III of the Barcelona Convention. The Bern Convention Appendix III requires Parties to protect listed species, but a certain amount of exploitation is permitted if population levels allow. The Annex III listing on the Barcelona Convention also requires the exploitation of these species to be regulated (Abdul Malak *et al.* 2011). Marine protected areas (MPAs) potentially enhance the long-term sustainability of coastal fish resources, and have had a positive effect on the Brown Meagre spill-over fishery resource (Di Franco *et al.* 2009, Forcada *et al.* 2009).

There was a moratorium of spear fishing in Corsica for this species. Since 2004, Montenegro included the species in the prohibited list for juvenile fishes, the limits was 30 cm total length (MAFWM 2004).

The species was assessed as Vulnerable for the Mediterranean regional assessment in 2007 (Biszel *et al.* 2011) based on FAO data on fishery declines for the period 1980-2005. More recent data show a fluctuating increase in reported landings figures. Whilst it is acknowledged that the species can attain moderately large sizes (up to 50-70 cm) and is highly targeted in artisanal, semi-commercial and recreational (sportfish) fisheries, the species has been shown to benefit from in-place conservation actions including no-take zone and marine protected areas (Di Franco *et al.* 2009, Forcada *et al.* 2009).

## **Credits**

**Assessor(s):** Chao, L.

**Reviewer(s):** Polidoro, B.

**Contributor(s):** Barriche, M., Bizzel, K., Kara, M., Quignard, J.P. & Yokes, B.



## Bibliography

Abdul Malak, D.A., Livingstone S.R., Pollard, D., Polidoro, B.A., Cuttelod, A., Bariche, M., Bilecenoglu, M., Carpenter, K.E., Collette, B.B., Francour, P., Goren, M., Kara, M.H., Massuti, E., Papaconstantinou, C. and Tunesi, L. 2011. Overview of the Conservation Status of the Marine Fishes of the Mediterranean Sea. In: IUCN (ed.). Gland, Switzerland.

Alós, J. and Cabanellas-Reboredo, M. 2012. Experimental acoustic telemetry experiment reveals strong site fidelity during the sexual resting period of wild brown meagre, *Sciaena umbra*. *Journal of Applied Ichthyology* 28: 606-611.

Artüz M.-L. 2006. Abundance and growth observations of *Sciaena umbra* Linnaeus, 1758 in Sea of Marmara. *Hidrobiologica* 1a: 124-128.

Bizsel, C., Yokes, B., Pollard, D., Kara, M.H., Bariche, M. and Quignard, J.P. 2011. *Sciaena umbra*. The IUCN Red List of Threatened Species 2011: e.T198707A9080239. Available at: [www.iucnredlist.org](http://www.iucnredlist.org). (Accessed: 24 September 2015).

Bussotti, S., Denitto, F., Guidetti, P. and Belmonte, G. 2002. Fish assemblage in shallow marine caves of the Salento Peninsula (Southern Apulia, SE Italy). *Marine Ecology* 23(Suppl. 1): 11-20.

Chatzifotis, S., Villamore Martin-Prat, A., Limberis, N., Papandroulakis, N. and Divanach, P. 2006. First data on growth of cultured brown meagre *Sciaena umbra* using diets with different protein and fat contents. *Fisheries Science* 72: 83-88.

Chauvet, C. 1991. Le corb ou brown meagre (*Sciaena umbra* - Linnaeus, 1758) quelques éléments de sa biologie. In: C.F. Bouderesque, M. Avon and V. Gravez (eds), *Les especes marines a protéger en Méditerranée*, pp. 229-235. GIS Posidonie, France.

Cruz, A. and Lombarte, A. 2004. Otolith size and its relationship with colour patterns and sound production. *Journal of Fish Biology* 65: 1512-1525.

Deudero, S., Morey, G., Frau, A., Moranta, J. and Moreno, I. 2008. Temporal trends of littoral fishes at deep Posidonia oceanica seagrass meadows in a temperate coastal zone. *Journal of Marine Systems* 70(1-2): 182-195.

Deudero, S., Pinnegar, J.K., Polunin, N.V.C., Morey, G. and Morales-Nin, B. 2004. Spatial variation and ontogenic shifts in the isotopic composition of Mediterranean littoral fishes. *Marine Biology* 145: 971-981.

Dieuzeide, R., Novella, M. and Roland, J. 1955. Catalogue des poissons des côtes algériennes. *Bull Sta d'Aqua et de Pêche de Castiglione* 6: 1-384.

Di Franco, A., Bussotti, S., Navone, A., Panzalis, P. and Guidetti, P. 2009. Evaluating effects of total and partial restrictions to fishing on Mediterranean rocky-reef fish assemblages. *Marine Ecology Progress Series* 387: 275-285.

Dulčić, J. and Glamuzina, B. 2006. Length-weight relationships for selected fish species from three eastern Adriatic estuarine systems (Croatia). *Journal of Applied Ichthyology* 22: 254-256.

Engin, S. and Seyhan, K. 2009. Age, growth, sexual maturity and food composition of *Sciaena umbra* in the south-eastern Black Sea, Turkey. *Journal of Applied Ichthyology* 25: 96-99.

FAO. 2011. Fishstat - FAO Fishery and Aquaculture Global Statistics. Available at: <http://www.fao.org/fishery/statistics/software/fishstatj/en>.

- Forcada, A., Valle, C., Bonhomme, P., Criquet, G., Cadiou, G., Lenfant, P. and Sánchez-Lizaso, J.L. 2009. Effects of habitat on spillover from marine protected areas to artisanal fisheries. *Marine Ecology Progress Series* 379: 197-211.
- Frimodt, C. 1995. *Multilingual illustrated guide to the world's commercial coldwater fish*. Osney Mead, Oxford, England.
- Garcia-Charton, J.A. and Perez-Ruzafa, A. 1999. Ecological heterogeneity and the evaluation of the effects of marine reserve. *Fisheries Research* 42: 1-20.
- Grau, A., Linde, M. and Grau, A.M. 2009. Reproductive biology of the vulnerable species *Sciaena umbra* Linnaeus, 1758 (Pisces: Sciaenidae). *Scientia Marina* 73(1): 67-81.
- Harmelin-Vivien, M.L., Bitar, G., Harmelin, J-G. and Monestiez, P. 2005. The littoral fish community of the Lebanese rocky coast (eastern Mediterranean Sea) with emphasis on Red Sea immigrants. *Biological Invasions* 7: 625-637.
- IUCN. 2015. The IUCN Red List of Threatened Species. Version 2015-4. Available at: [www.iucnredlist.org](http://www.iucnredlist.org). (Accessed: 19 November 2015).
- Karakulak, F.S., Erk, H. and Bilgin, B. 2006. Length-weight relationships for 47 coastal fish species from the northern Aegean Sea, Turkey. *Journal of Applied Ichthyology* 22: 274-278.
- Koutrakis, E.T. and Tsikliras, A.C. 2003. Length-weight relationships of fishes from three northern Aegean estuarine systems (Greece). *Journal of Applied Ichthyology* 19: 258-260.
- La Mesa, G. and Vacchi, M. 1999. An analysis of the coastal fish assemblage of the Ustica Island Marine reserve (Mediterranean Sea). *Marine Ecology* 20(2): 147-165.
- Lipej, L., Bonaca, M.O. and Sisko, M. 2003. Coastal fish diversity in three marine protected areas and one unprotected area in the Gulf of Trieste (Northern Adriatic). *Marine Ecology* 24(4): 259-273.
- Macpherson, E., Gordo, A. and Garcia-Rubies, A. 2002. Biomass size spectra in littoral fishes in protected and unprotected areas in the NW Mediterranean. *Estuarine Coastal and Shelf Science* 55: 777-788.
- MAFWM. 2004. *Order on the Prohibition of catch and trade in fish juveniles, undersized fish and other marine organisms: 13 Annex - Fisheries*. Podgorica.
- Mylonas, C.C., Kyriakou, Y., Sigelaki, I., Georgiou, G., Stephanou, D. and Divanach, P. 2004. Reproductive Biology Of The Shi Drum (*Umbrina cirrosa*) in Captivity And Induction Of Spawning Using GnRha. *Israeli Journal of Aquaculture* 56(2): 75-92.
- Ruitton, S., Francour, P. and Boudouresque, C.F. 2000. Relationships between algae, benthic herbivorous invertebrates and fishes in rocky sublittoral communities of a temperate sea (Mediterranean). *Estuarine Coastal and Shelf Science* 50: 217-230.
- Sala, E. 1997. The role of fishes in the organization of a Mediterranean sublittoral community II: epifaunal communities. *Journal of Experimental Marine Biology and Ecology* 212: 45-60.
- Triantaphyllidis, G. 2012. Marine aquaculture: a success story in Greece. Available at: <http://fishconsult.org/wp-content/uploads/2012/03/Marine-aquaculture-is-a-success-story-in-Greece.pdf>.
- Tunesi, L. and Molinari, A. 2005. Species richness and biogeographic outlines of the fish assemblage of the Portofino Marine Protected Area (Ligurian Sea). *Biologia Marina Mediterranea* 12(1): 116-123.

Tunesi, L., Molinari, A., Agnesi, S., Di Nora, T. and Mo, G. 2005. Presence of fish juveniles in the Ligurian coastal waters: synthesis of available knowledge. *Biologia Marina Mediterranea* 12(1): 455-459.

Tunesi, L., Molinari, A. and Salvati, E. 2006. Fish assemblage of the marine protected area of Cinque Terre (NW Mediterranean Sea): First characterization and assessment by visual census. *Chemistry and Ecology* 22(S1): S245-S253.

## Citation

Chao, L. 2015. *Sciaena umbra*. *The IUCN Red List of Threatened Species 2015*: e.T198707A83232286.  
<http://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T198707A83232286.en>

## Disclaimer

To make use of this information, please check the [Terms of Use](#).

## External Resources

For [Images and External Links to Additional Information](#), please see the [Red List website](#).

## Appendix

### Habitats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Habitat	Season	Suitability	Major Importance?
9. Marine Neritic -> 9.2. Marine Neritic - Subtidal Rock and Rocky Reefs	Resident	Suitable	Yes
9. Marine Neritic -> 9.4. Marine Neritic - Subtidal Sandy	Resident	Suitable	Yes
9. Marine Neritic -> 9.5. Marine Neritic - Subtidal Sandy-Mud	Resident	Suitable	Yes
9. Marine Neritic -> 9.6. Marine Neritic - Subtidal Muddy	Resident	Suitable	Yes
9. Marine Neritic -> 9.10. Marine Neritic - Estuaries	Resident	Suitable	Yes
12. Marine Intertidal -> 12.1. Marine Intertidal - Rocky Shoreline	Resident	Suitable	Yes
12. Marine Intertidal -> 12.2. Marine Intertidal - Sandy Shoreline and/or Beaches, Sand Bars, Spits, Etc	Resident	Suitable	Yes
12. Marine Intertidal -> 12.3. Marine Intertidal - Shingle and/or Pebble Shoreline and/or Beaches	Resident	Suitable	Yes

### Threats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Threat	Timing	Scope	Severity	Impact Score
1. Residential & commercial development -> 1.1. Housing & urban areas	Ongoing	Unknown	Unknown	Unknown
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
1. Residential & commercial development -> 1.2. Commercial & industrial areas	Ongoing	Unknown	Unknown	Unknown
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
5. Biological resource use -> 5.4. Fishing & harvesting aquatic resources -> 5.4.1. Intentional use: (subsistence/small scale)	Ongoing	Majority (50-90%)	Rapid declines	Medium impact: 7
	Stresses:	1. Ecosystem stresses -> 1.3. Indirect ecosystem effects 2. Species Stresses -> 2.2. Species disturbance		
6. Human intrusions & disturbance -> 6.1. Recreational activities	Ongoing	Minority (50%)	Causing/could cause fluctuations	Low impact: 5
	Stresses:	1. Ecosystem stresses -> 1.3. Indirect ecosystem effects 2. Species Stresses -> 2.1. Species mortality		

### Conservation Actions in Place

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

<b>Conservation Actions in Place</b>
In-Place Research, Monitoring and Planning
Action Recovery plan: Unknown
Systematic monitoring scheme: Unknown
In-Place Land/Water Protection and Management
Conservation sites identified: Unknown
Occur in at least one PA: Yes
Area based regional management plan: Unknown
In-Place Species Management
Harvest management plan: Unknown
Successfully reintroduced or introduced benignly: Unknown
In-Place Education
Subject to recent education and awareness programmes: Unknown
Included in international legislation: Yes
Subject to any international management/trade controls: Yes

## Conservation Actions Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

<b>Conservation Actions Needed</b>
1. Land/water protection -> 1.1. Site/area protection
1. Land/water protection -> 1.2. Resource & habitat protection
2. Land/water management -> 2.1. Site/area management
2. Land/water management -> 2.3. Habitat & natural process restoration
3. Species management -> 3.1. Species management -> 3.1.1. Harvest management
3. Species management -> 3.1. Species management -> 3.1.2. Trade management

## Research Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

<b>Research Needed</b>
2. Conservation Planning -> 2.1. Species Action/Recovery Plan
2. Conservation Planning -> 2.2. Area-based Management Plan
3. Monitoring -> 3.1. Population trends

## Additional Data Fields

<b>Distribution</b>
Extreme fluctuations in area of occupancy (AOO): No
Lower depth limit (m): 200
Upper depth limit (m): 5
<b>Population</b>
Continuing decline of mature individuals: Yes
Extreme fluctuations: No
Population severely fragmented: No
<b>Habitats and Ecology</b>
Continuing decline in area, extent and/or quality of habitat: Yes
Generation Length (years): 5
Movement patterns: Not a Migrant
Congregatory: Congregatory (and dispersive)

## The IUCN Red List Partnership



The IUCN Red List of Threatened Species™ is produced and managed by the [IUCN Global Species Programme](#), the [IUCN Species Survival Commission \(SSC\)](#) and [The IUCN Red List Partnership](#).

The IUCN Red List Partners are: [BirdLife International](#); [Botanic Gardens Conservation International](#); [Conservation International](#); [Microsoft](#); [NatureServe](#); [Royal Botanic Gardens, Kew](#); [Sapienza University of Rome](#); [Texas A&M University](#); [Wildscreen](#); and [Zoological Society of London](#).