Viewing: Latest Version (1.0.1)

Status Assessment 2020 - Blue Whale

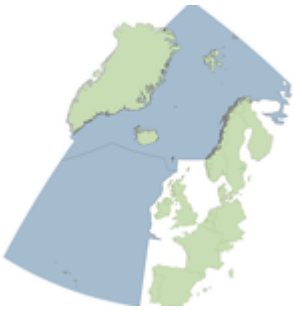
Blue whales regularly occur in Regions I (Barents Sea, Svalbard) and V (Iceland, Azores), and recently in Region III (Ireland). Rare sightings are known from region IV (Spain, France).

Populations were seriously reduced in the 19th and 20th century due to industrial whaling (e.g. >10,730 whales killed in the North Atlantic between 1868-1965).

Hunting stopped officially with the whaling moratorium on blue whales in 1966 though the last deliberate kill was in 1978 (*Cooke 2018*).

The current abundance for the NE Atlantic is unknown, and while they are still considered to be rare, there are indications that the population off Western and Northern Iceland is increasing (2015: 3,000 individuals).

The global assessment of IUCN for the Blue Whale categorize the status as endangered (*Cooke 2018*).



OSPAR QSR2023

(/en/ospar-assessments/quality-status-reports/qsr-2023/)

Blue Whale Status		Distribution		Population size (historic)		Demographics		Status	
Region	I	←→		↑		?		Poor	1
	II							N/A	
	III							N/A	
	IV							N/A	
	V	←→		←→		?		Poor	1

Blue Whale Threat/Impact		Underwater sound		Shipping		Entanglement		Climate change		Pollution		Evidence of threat or impact	
Region	I	↑		↑		?		?		?		Mostly good	1-5
	II											N/A	
	III											N/A	
	IV											N/A	
	V	↑		↑		?		?		?		Mostly good	1-5

⊞ Table Legend

⊞ Method of Assessment

Background Information

- Year added to OSPAR List: 2008 (OSPAR 2009)
- Case report: https://www.ospar.org/documents?v=7099 (https://www.ospar.org/documents?v=7099)
- Key criteria: severe decline due to whaling until the first half of the 20th century; the species occurs within the OSPAR Area primarily in OSPAR Region I & V. IUCN lists the species as endangered (Cooke 2018)
- Sensitivity: long-lived, low reproductive rate, low density, sensitive to acoustic disturbance and ship-strikes.
- Key anthropogenic pressures: ship strikes, underwater noise, fishing (resource depletion); entanglement; climate change, including its indirect consequences such as changes in

feeding conditions, increase in human activities in its area of distribution, tourism; oil and gas exploration; pollution

- Last status assessment and brief outcome: OSPAR QSR (2010). Same as above – given the species' slow recovery rate, change will only be visible after decades. Current estimates of abundance around Iceland are higher than mentioned in OSPAR (2010), possibly indicating an increasing population.

Geographical Range and Distribution

Photo-identification studies suggest that there are at least two largely discrete blue whale populations with distinct feeding aggregations in the North Atlantic (Sears et al. 2005, 2016; Pike et al. 2009). The Northwest Atlantic population is centred in eastern Canadian waters, ranging from west Greenland and south along North America to New England. The Northeast Atlantic population ranges from waters off Northwest Africa to north of Spitsbergen (e.g. Reeves et al. 2004, Sears et al. 2005; Pike et al. 2009; Silva et al. 2014; NAMMCO 2017). Matches between individual animals between the Northwest and Northeast Atlantic blue whale catalogues are very rare (Sears et al. 2016).

Migration routes of blue whales in the Northeast Atlantic are still not well understood, but they are known to cover very large distances (Clark 1994). There is movement from tropical and sub-tropical areas in the winter where they are more dispersed, to more narrow distribution in higher latitudes in the summer. Whales tagged off Svalbard and East Greenland have been tracked to the south of Iceland (Heide-Jørgensen et al. 2001; NAMMCO 2017, 2018a), moving through the Denmark Strait. Tagging studies show tracked blue whales from the Azores moving almost up to Iceland (Silva et al. 2014). There is also new evidence that the area southwest of Ireland is part of the migration route from high latitudes in summer to winter feeding areas in lower latitudes (Baines et al. 2017; Berrow et al. 2018).

Method of assessment: 1 and 3

Population/Abundance

Blue whales are considered rare in the Northeast Atlantic. They occur primarily around Iceland (in summer) and the Azores (in winter).

For Iceland, the most recent abundance estimate from 2015 is 3,000 animals (NAMMCO 2018b, Pike et al. 2019). Previous estimates from surveys from 1987 (222 animals, 95% C.I. 115-400), 1989 (531 95% C.I. 288-759), 1995 (979, 95% C.I. 137-2542) and 2001 (855, 95% C.I. 358-1419), even though some of these are not corrected for potential survey biases, provide strong indications this population is increasing (Pike et al. 2009, NAMMCO 2018b, Pike et al. 2019).

The overall low density of blue whales in other areas of the Northeast Atlantic has made it impossible to derive estimates. None of the large-scale surveys conducted ((T)NASS, CODA and SCANS) have had sufficient (or any) numbers of sightings to calculate abundances (Øien 2009, Leonard & Øien, 2019a,b,c,d, Pike et al. 2009, Hammond et al., 2017). Notably Baines et al. (2017) recorded 16 blue whales southwest of Ireland in July to October 2013.

The Icelandic (2018) and Norwegian (2015) Red Lists both list the species as Vulnerable. The International Whaling Commission (IWC) has not carried out a full assessment of the present status, but notes “Encouragingly though, the available evidence suggests they are increasing, at least in the area of the central North Atlantic”. At a global level, the IUCN Red List classifies the species as Endangered, but increasing in those regions where the species was most depleted (the Antarctic and the North Atlantic) (Cooke 2018).

Method of assessment: 1 and 3

Condition

Blue whales were heavily decimated by commercial whaling in the first half of the twentieth century. While this activity stopped in the 1970s due to its low reproductive rate and late age of sexual maturity, potential recovery is predicted to be slow. Some indications of local increase in occurrence exists (see above), but the available data is not sufficient to assess trends.

Several hybrids of fin and blue whales (some pregnant) have been documented (Árnason et al. 1991, Spilliaert et al. 1991, Bérubé & Aguilar 1998, Cipriano & Palumbi 1999, Berube et al. 2017). In 2013, a fin/blue whale hybrid was caught in the Irminger Sea west of Iceland. Another was caught in 2018 that has been genetically confirmed as a hybrid, with a fin whale father and a blue whale mother (MRFI 2018).

Method of assessment: 1 and 3

Threats and Impacts

Whaling: In the past, whaling was the main threat to the species. Currently blue whales are protected and not subject to hunting. However, fin whales are hunted by Iceland and there have been a number of incidents where blue-fin whale hybrids have been taken (MFRI 2018). Due in part to the low density of the species, it is difficult to assess the scale of potential impacts though the following are likely threats:

Ocean noise: Human activities such as naval sonars, seismic exploration or ship traffic (including whale watching) produce sounds that can have a negative impact on this species, for example by disrupting feeding activities (Sears & Perrin 2018, Southall et al. 2019, Di Iorio & Clark 2010).

Ship strikes: Blue whales are subject to collisions with ships, causing injury or death. While in the North Atlantic, records of blue whale ship strikes are very rare the expected increase in shipping activity in the Arctic region in the near future makes it likely that ship strike incidents will occur

more often.

Entanglements: While no entanglements have been reported for the OSPAR area, it is a potential threat that has not yet been quantified.

Pollution: As long-lived cetaceans, blue whales are likely to be negatively impacted by pollutants in the marine ecosystem though their low trophic feeding affords them some protection.

Climate change: Potential climate change impacts on the marine ecosystem are still poorly understood. Changes in ocean acidity, water temperature and currents could lead to a reduction in prey.

Method of assessment: 1, 3, 4 and 5

Measures that address key pressures from human activities or conserve the species/habitat

Other relevant competent authorities are IWC and NAMMCO and IMO.

NAMMCO provides management advice to the Faroe Islands, Greenland, Iceland and Norway on the conservation status of blue whales. Blue whales are protected by all NAMMCO member countries.

Blue whales have been protected worldwide since 1966, and no deliberate catch of blue whales has been recorded since 1978 (Cooke 2018).

Actions of OSPAR related to climate change and pollution might benefit the species.

The overview assessment of implementation reporting was not available at the time of publishing this status assessment. Future updates of the status assessment will take implementation reporting against OSPAR actions into account.

Method of assessment: 1 and 3

Conclusion (including management considerations)

The Northeast Atlantic blue whale population is still recovering from heavy exploitation during the commercial whaling period. There is some evidence that the abundance of blue whales is increasing locally, but potential recovery is occurring slowly.

Due to the low density of this species, the scale of impacts of current human activities is difficult to assess. It should be assumed that threats listed above can be a cause of concern and that they could negatively impact the recovery of blue whales in the Northeast Atlantic.

The current situation warrants that the blue whale remains on the OSPAR list.

IWC is the main international organization in charge of protecting large whales in the world and assessing their status. Therefore, OSPAR could contact the IWC to notify them of its concern about the status and conservation of the Northeast Atlantic blue whale population and request that issues relative to the status of this stock and threats would be treated as priority issues within the IWC.

NAMMCO is a regional body for cooperation on conservation, management and study of cetaceans and pinnipeds in the North Atlantic. Therefore, OSPAR could contact NAMMCO to notify this organization of its concern about the status and conservation of the Northeast Atlantic blue whale population and request that issues relative to the status of this stock and threats would be treated as priority issues on the NAMMCO agenda.

Given the expected opening of new shipping routes in the Arctic and the associated increase in shipping traffic, not only in the Arctic but also in the Northeast Atlantic in general, OSPAR could address IMO to notify them regarding its concern about the potential danger of ship strikes in the area of distribution of the blue whale.

Finally, OSPAR's general activities related to climate and to pollutants are relevant.

Knowledge Gaps

There is no current assessment of blue whale population size in the Northeast Atlantic. Data on migration routes and exchange between the Northwest and Northeast Atlantic are still poor. There is a lack of information on how human activities such as shipping, noise production, entanglement and contaminants is impacting this species.

Context & Guidelines

Guidance on the Development of Status Assessments for the OSPAR List of Threatened and/or Declining Species and Habitats

OSPAR Agreement 2019-05e (https://www.ospar.org/documents?v=40966)

⊞ References

Sheet reference:

BDC2020/Blue whale

OSPAR COMMISSION

(https://www.ospar.org)

- Sitemap (/sitemap.xml)
- Privacy Policy (https://www.ospar.org/privacy)
- Terms of Use (https://www.ospar.org/terms)
- Data Policy & Conditions of Use (/data-policy/)

Select Language

English

Powered by: DjangoCMS (https://www.django-cms.org)

CMS (https://www.django-cms.org)

Website by: Michael Carder Ltd (https://www.michaelcarder.co.uk)

mcl (https://www.michaelcarder.co.uk)