

# Protecting Whales in the Arabian Sea through Regional Collaboration



## Goal:

By 2020, establish where endangered Arabian Sea humpback whales are most at risk from threats like ship strikes and entanglement in fishing gear, and to implement appropriate conservation measures mitigate these threats.

## Current Threats:

Historical whaling records and fifteen years of [research conducted off the coast of Oman](#), have revealed that Arabian Sea humpback whales are the only non-migratory population of humpback whales in the world. This unique population is [endangered](#) and [genetically isolated](#) and most likely represents a new subspecies. While fewer than 100 individuals remain off the coast of Oman, little is known about their range or numbers in other parts of the Arabian Sea. Threats throughout the region include:

- **Entanglement in fishing gear:** Recent work suggests that over 700 vessels using gillnets in Pakistan may accidentally catch up to 12,000 whales and dolphins per year. 30—40% of humpback whales photographed off Oman have scarring caused by fisheries gear entanglement.
- **Shipping, including ship strikes and disturbance from vessel noise:** The region includes some of the world's busiest shipping lanes, and port construction and expansion is occurring in key humpback whale habitats off Oman and Pakistan.
- **Fast ferry traffic and coastal development** present many new threats in a region where human populations are growing and infrastructure is expanding.
- **Oil and gas exploration and production** carry threats of disturbance from seismic surveys and drilling, increased ship traffic, and the risk of oil spill.



*Bryde's whale found entangled in a gill net off the coast of Oman, October 2001 (Photo by Gianna Minton).*

Throughout the region, stakeholder awareness of the conservation status of Arabian Sea humpback whales and the many threats they face, is dangerously low. **In the absence of efforts to mitigate these threats, the Arabian Sea humpback whale population and other large whale populations face an inevitable slide towards extinction.**

## Regional collaboration to protect whales

An Arabian Sea whale workshop held in January 2015 addressed these pressing conservation concerns and led to the formation of the Arabian Sea Whale Network (ASWN – [arabianseawhalenetwork.org](http://arabianseawhalenetwork.org)), a group seeking to conserve humpback whales and other cetaceans in the Arabian Sea. ASWN [members](#) include representatives of large international NGO's like the World Wildlife Fund (WWF - with offices in Pakistan, India and the UAE) and the Wildlife Conservation Society (WCS), as well as grass-roots environmental organizations like the [Environment Society of Oman](#) and [Plan4theland](#) in Iran. It also includes regional academic institutions, such as the University of Karachi, and independent researchers in Oman, India, Iran and Sri Lanka and other whale experts from around the world.



Humpback whale breaching off the coast of Oman, © ESO and Ken Findlay

## Strategies and activities

### Addressing knowledge gaps

- The development of a marine mammal reporting **smartphone App** and citizen science tools, to allow the crews of fishing, coast guard and whale-watch vessels and ferries to record and report whale and dolphin observations. *Estimated cost: 20,000 USD Year 1; 10,000 USD Years 2 and 3.*
- Collaborative **boat-based research** to continue photo-identification studies, collect genetic samples, and identify critical habitat. The involvement of local scientists in this research will build capacity for future conservation in the region. *Estimated cost per year: 75,000 USD over 3 years.*
- Use of **passive acoustic recorders** to detect the presence of whales and monitor human introduced noise in areas that are logistically difficult or dangerous to survey. *Estimated cost per year over three years: 100,000 USD.*
- **Genetic analysis** of samples collected from strandings and during dedicated whale surveys to determine whether Arabian Sea humpback whales comprise a new sub-species: *Estimated cost in years 1 and 3: 100,000 USD.*

### Information sharing and awareness raising

- The development of a **regional shared online data platform** to promote standardization, comparability and timely analyses of data collected throughout the region. This will be used to facilitate the creation of sensitivity maps and assist stakeholders in the design of local, national and regional conservation strategies, including protected areas. *Estimated cost: 55,000 USD in Year 1; 30,000 USD in Year 2; 5,000 in year 3.*
- An improved **website** that provides a portal to the shared database (see above), informs the general public of whale conservation needs, and provides members with a range of **outreach tools** to engage governments and other stakeholders in their region and involve them in Whale conservation efforts. *Estimated cost: 10,000 USD Year 1; 5,000 USD Year 2.*

### Capacity building and development and implementation of mitigation strategies

- Organization of targeted **regional workshops, meetings and training** opportunities that will involve local and national government agencies as well as young scientists, build capacity and develop multi-stakeholder mitigation strategies and conservation measures in key range states. *Estimated cost per year: 50,000 USD.*
- Replication of **ship strike mitigation** strategies from Oman, and **by-catch mitigation** from Pakistan to other parts of the Arabian Sea. *Estimated cost per year: 50,000 USD.*

**Total Budget required for three years (through end 2019): 910,000 USD.**

The Arabian Sea Whale Network has been formed with support from WWF International, WWF Pakistan, Emirates Wildlife Society - WWF (EWS-WWF), the Marine Mammal Commission and the Wildlife Conservation Society. A full list of members can be found [here](#).

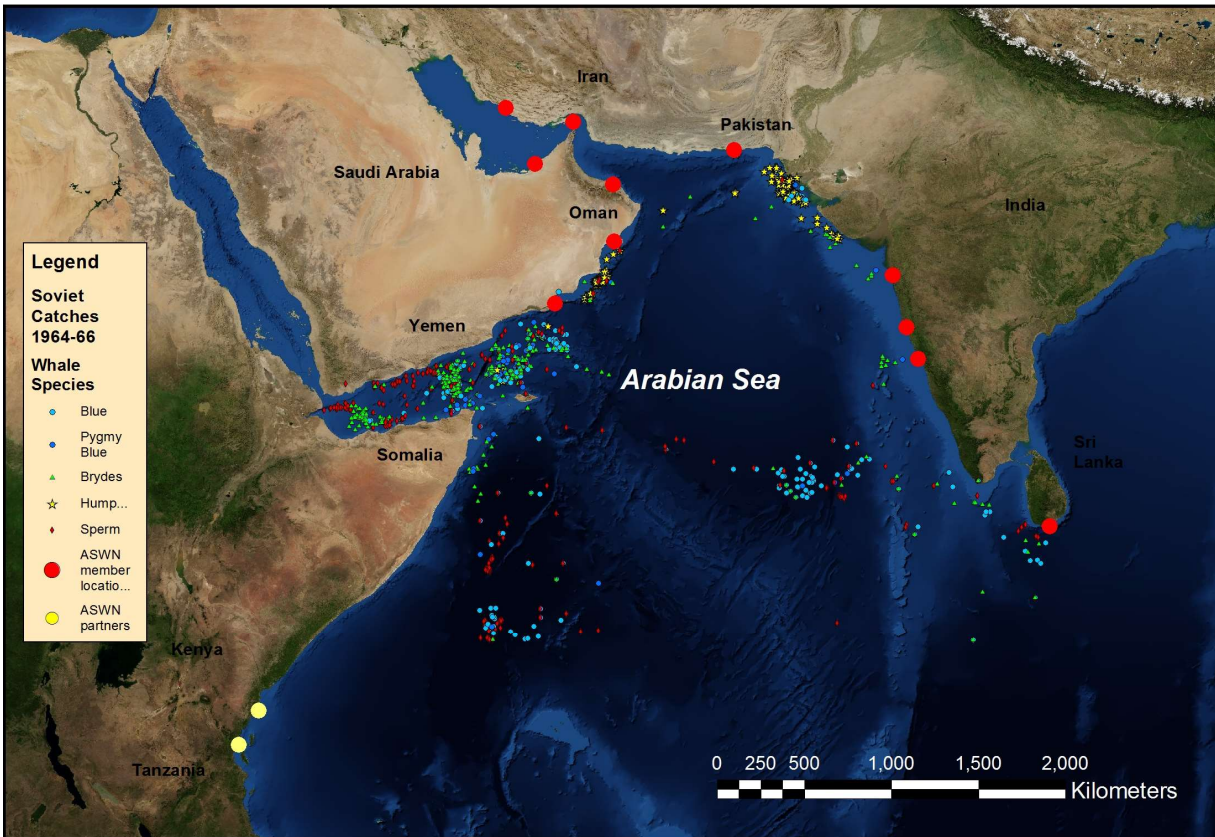
For more information see the provisional website:

[www.arabianseawhalenetwork.org](http://www.arabianseawhalenetwork.org) or contact [Arabian.sea.whale.network@gmail.com](mailto:Arabian.sea.whale.network@gmail.com).



Researchers applying satellite tags to humpback whales off the coast of Oman.





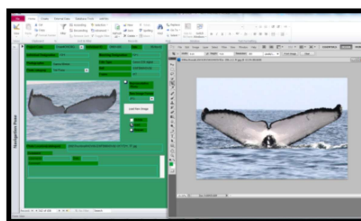
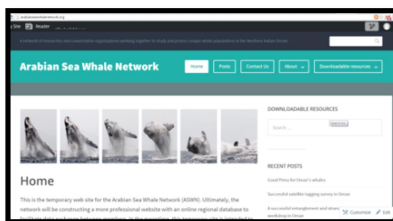
The Arabian Sea region, with locations of members and collaborators of the Arabian Sea Whale Network, and the thousands of whales killed during illegal, clandestine Soviet whaling operations in the 1960's. Due to a lack of dedicated research anywhere other than the coast of Oman, it is not known whether whales are still present in significant numbers as they were then (Data on Soviet catch positions provided by the International Whaling Commission).

## Background and history of success:

Arabian Sea Whale Network (ASWN) members have a proven track record in conservation based research, awareness-raising, and development and implementation of multi-stakeholder mitigation measures:

- **Members in Oman** are implementing photo-identification, genetic, acoustic, and satellite tagging studies of humpback whales, and using results for mitigation strategies and to **engage the public** in whale conservation. Mitigation work includes work with government and industry stakeholders to **mitigate the risk of ship strike** and to ensure that offshore seismic surveys adhere measures to minimize disturbance to whales.
- Members in Pakistan have launched a successful programme to **collect data from fishermen** and help them to mitigate fisheries bycatch and **release whales, dolphins and turtles accidentally caught in their nets**.
- Members in **India, Iran, Oman and Pakistan** are engaged in community outreach and education programmes, working with fishermen and forming effective stranding networks **to free live stranded animals** and collect data and precious biological samples from stranded whales all over the country.

The network's **first** and **second** newsletters include details of some of these efforts. All of these activities are endorsed and encouraged by a global network of whale research and conservation experts associated with the IUCN, the International Whaling Commission (IWC), and the Convention for Migratory Species (CMS). These organisations all formally recognize the precarious conservation status of whales in the Arabian Sea.



ASWN provisional website (left) which will be upgraded to include an online regional data platform for photo-identification and mapping. Regional workshops will include training to disentangle whales and dolphins from fishing gear and respond to marine mammal strandings (right).