SITE INFORMATION SHEET TEMPLATE

in support of a formal proposal to nominate a site for inclusion in the IOSEA Marine Turtle Site Network

The completed Information Sheet is intended to be submitted to the IOSEA Secretariat, through the national IOSEA Focal Point. As the contents will serve as the primary basis for evaluation of site nominations, responses should be as comprehensive as possible.

1. Date of submission (DD/MM/YYYY):
The date on which the Site Information Sheet was completed.

08 / 03 / 2015 (revision)

2. Name and address of compiler(s), if not the IOSEA Focal Point
Name and contact information (including affiliation) for the individual(s) who prepared this information sheet, for formal submission through the national IOSEA Focal Point.

Name:	Asghar Mobaraki (Focal Point)	
Functional Title:	Head of the Reptilian and Amphibian Group	
Organization:	Department of the Environment	
Address:	Biodiversity and Wildlife Bureau, Deputy for the Natural Environment, Pardisan Eco-Park, Hemat Highway, Tehran, Iran	
Email:	amobaraki@yahoo.com	Tel. / Fax: +9821 42781879

3. Country: *The name of the country in which the site is located.*

Islamic Republic of Iran

4. Name of site: *The name of the site (alternative names should be given in brackets).*

Sheedvar Island (Other spellings of the Island name include: Shidvar Island, Shetvar Island, Shotor Island)

5. Geographical coordinates
The geographical coordinates (latitude and longitude) of the approximate centre of the site, expressed in 'decimal degrees'. For example, the location of the IOSEA Secretariat in Bangkok is 13.763483°, 100.508157°. If the site consists of two or more discrete units, the coordinates of the centres of each of these units should be given. (Add any additional coordinates in a separate annex.)

Decimal Degrees	26.791656	,	53.411513

6. General location
Describe the general location of the site. This should include the site's distance (in a straight line) and compass bearing from the nearest significant administrative centre, town or city. The human population of the listed centre and its administrative region should also be stated. (See also the information requested under point 24: Site Map)

Sheedvar Island is located in the province of Hormozgan, about 2 km off the eastern tip of Lavan Island and about 9 km off the mainland coast, in the central Persian Gulf. Although the Island is uninhabited, it is widely used by fishermen as a location for resting (Scott, 1995).

Sheedvar Island is located 157 km from Bandar-E Lengeh, the main administrative town in the North-west.

In the remainder of this document, the codes that appear in square brackets alongside each of the titles below refer to sections of a separate document describing the evaluation criteria, which will be informed by the proponents' submission. Proponents are encouraged to consult the Evaluation Criteria document[1] for further explanation of the rationale behind each criterion and of the detailed information to be used for evaluation purposes.

7. Area [N3]

The approximate surface area of the site to be included in the network (in hectares or square kilometers). If the site is an island, indicate also the total surface area of the coastline directly relevant to turtle conservation. Area should correspond to the map provided under point 24.)

Total area of the island: 97 ha (Scott, 1995).

Coastline: 5.5 km (Mobaraki 2004, 2006).

Coastline directly relevant to turtles: about 3 km in northern and eastern parts.

The offshore area is important as inter-nesting habitat for hawksbills and feeding grounds for green turtles. The foraging area is estimated to include about 70 ha.

8. Physical features of the site [EB1- 4, S5, S6, N1]

Describe the principal physical characteristics of the site, including the marine turtle habitat types occurring at the site. List the ecosystem types included in the site (nesting beach, foraging habitat, reproductive habitat, migratory habitat) and the approximate area in hectares (or km^2) of each habitat type included. Indicate whether the site's physical attributes are shared by other sites in the country, or are exceptional/unique.

General characteristics

Sheedvar Island is a good representative example of a low-lying offshore island (maximum elevation of about 8 metres) surrounded by coral reefs, characteristic of the Persian Gulf. It is a small rocky island, roughly oblong in shape and relatively flat.

- The island consists of sand, shingle or pebble shores, including sandbars, spits and sandy islets, dune systems and humid dune slacks. There are two main areas of sand dunes stretching across the northern and southern parts of the island.
- Rocky marine shores, including rocky offshore islands and sea cliffs occur around the island. Along the southern, western and north western shores, there are low rock cliffs, which never exceed 2 metres in height. In the south-east corner, the rocks have become fragmented to form a jumbled heap of boulders just above high water mark.

There are also coral reefs around the island, which are almost completely hidden, above high water mark, but they are almost degraded (Scott, 1995).

Habitats for marine turtles

Nesting habitats

As of 2012, the Island was one of the most important nesting sites of sea turtles in Iran, especially for hawksbill turtles (*Eretmochelys imbricata*). Considering the situation and number of nesting turtles, it could be one of the most important sites in the Persian Gulf.

As of 2012, the eastern and northern beaches of the Island are sandy and suitable for the nesting of hawksbill turtles (Mobaraki 2004, 2006). The nesting habitat extends over an approximate total area of 0.1 km^2.

Information on the two nesting beaches as of 2003 :

[1] Criteria for the Evaluation of Nominations to the Network of Sites of Importance for Marine Turtles in the Indian Ocean – South-East Asia Region, IOSEA Marine Turtle MoU Secretariat. http://ioseaturtles.org/sitenetwork-evaluation.php

- The eastern part is smooth and flat, with a length of 1 km, extending between 26º 47.485 N, 53º 25.101 E and 26º 47.604 N, 53º 25.187 E (Mobaraki 2004, 2006)
- The northern part has beaches of varying gradient, and is rocky in some places, with a length of about 2 km, extending between 26º 47.728 N, 53º 24.401 E and 26º 47.604 N, 53º 25.187 E (Mobaraki 2004, 2006)
- *Foraging habitats*

The waters of Sheedvar offer feeding habitats for green turtles (*Chelonia mydas*) (Mobaraki 2004, 2006). This feeding habitat is estimated to be about 70 ha (A. Mobaraki, *pers. comm*. to the IOSEA Secretariat, 17/09/2013).

Uniqueness

The Island has some attributes shared by other sites, such as Nakhiloo and Ommolkaram in Bushehr province, which are more than 200 km far from Sheedvar in eastern side. However, the site is the only Iranian island designated as a Ramsar Site (wetland of international importance). In addition, it is an important nesting site and foraging area for marine turtles in the Iranian portion of the Persian Gulf.

9. Ecological resources [EB1- 4, S5, S6, N1]

Describe the ecological resources at the site, including marine turtles and other noteworthy biodiversity. Describe the marine turtle species / management units occurring at the site, if they are known. Where possible, provide an abundance estimate for each marine turtle species/management unit (e.g. in terms of average number of turtles nesting annually or foraging). Evaluation Criteria EB1a and EB1b offer guidance on how to describe the relative importance of a site frequented by one or more marine turtle species. Indicate whether the site's ecological resources are shared by other sites in the country or are exceptional/unique.

Marine turtles

The island is an important nesting site for two species of sea turtles, namely the hawksbill turtle (*Eretmochelys imbricata*) and green turtle (*Chelonia mydas)* both of which are internationally threatened species (Mobaraki 2006).

Although both hawksbills and green turtles have been recorded nesting on Sheedvar Island, hawksbill turtle nesting is more common. The total number of nests per year seems to be less than 40, involving an unknown number of individuals. Some turtles that nest on Sheedvar Island may nest on Lavan Island because Lavan and Sheedvar Islands are close together (Mobaraki 2006). While nesting on Lavan Island is very low, the island constitutes an important feeding ground for green turtles.

Between 6 and 11 May 2003, there were 30 hawksbill nesting emergences, of which only seven laid their eggs (Mobaraki 2004). A total of 13 female hawksbills were tagged during the eight-day study period. The site is visited annually during the nesting season for tagging of nesting turtles. Currently, about 200 hawksbills and about 20 green turtles have been tagged on Sheedvar Island.

During 1999 green turtles were recorded foraging in waters off Sheedvar Island (Mobaraki 2004). In 2010, a green turtle nested on the island, which is consistent with the idea that green turtles nest at this site occasionally.

Flora

The sand dunes are sparsely vegetated with a typical sand-dune plant community. The vegetation of the central parts of the Island is mostly *Seuda vermiculata* and *Atriplex* sp. Other species recorded from the Island include: *Aeluropus lagopoides*, *Cistanche* sp., *Cyperus rotundus*, *Erodium*

sp., *Ephedra litoralis, Heliothropium bacciferum*, *Lycium shawii*, *Plantago afra*, *Salvadora persica* (the only shrub on the Island, locally named Mesvak), *Senecio* sp., and *Verbascum orientalis*

(Scott 1995, Ramsar Information Sheet 1999/ Sheedvar Island).

Considering the ecologically limiting factors, such as low rainfall and the sandy soil, the vegetation has remained unchanged during the past years.

Fauna

Birds

The Island is host to more than an estimated 20,000 waterfowl, shore birds, and seabirds during the breeding season (Scott 1995).

It supports the largest known breeding colony of terns in Iran (Scott 1995):

- Over 1% of the individuals in the regional population of *Sterna repressa* (20,000-30,000 pairs), *S. anaethetus* (5,000-15,000 pairs) and probably *S. bengalensis* (only 11-18 breeding pairs, but up to 1,000 adults).
- Much smaller numbers of *S. bergii* (only 3-6 breeding pairs, but up to 100 adults)

The site also holds the only known breeding colony of *Phalacrocorax nigrogularis* in Iran, with about 50-100 pairs breeding in an area of boulders at the south-eastern corner of the island (Scott 1995).

There is a small colony of *Egretta gularis* (8-12 pairs) as well as 3-4 breeding pairs of *Butorides striatus* (Scott 1995).

The discovery of the Striated Heron (*Butorides striata*) on Sheedvar in June 1972 constituted the first record of this species in Iran (Scott 1995).

Only two species of passerines are resident on the Island: *Galerida cristata* and *Prinia gracilis*. *Pandion haliaetus* was recorded in June 1972, and may breed nearby. *Charadrius mongolus*, *Arenaria interpres*, *Calidris alba* and *Larus hemprichii* were recorded only in July 1977. *Charadrius alexandrinus* was recorded in 1972, 1977 and 1981 (Scott 1995).

Reptiles

The Saw scale snake (Viperidae: *Echis carinatus*) is abundant and has given rise to the island's alternative name, "Maru" (Snake Island). House Gecko (*Hemidactylus sp)* and Levant skink (*Trachylepis aurata)* are the other lizards inhabiting the island (Scott 1995, Mobaraki 2004).

The terrestrial faunal community of the Island seems to have been relatively unchanged over the past years.

Uniqueness

The site shares features with Nakhiloo and Ommolkaram. In summary, ecological resources appear to be diverse – particularly birds - but there is little systematic information and there is limited recent information.

10. Cultural importance [S1]

Describe the cultural / religious / spiritual importance of the site (e.g. in terms of historical associations, spiritual traditions, religious significance etc.), as well as non-consumptive traditional beliefs/practices, in relation to marine turtles. If possible, provide references to published/unpublished historical or other accounts, which may give an indication of relative importance in a national context.

There is no permanent human population. However, the presence of a ruined stone building at the south-east corner of the island is evidence of some occupation in the past (Scott 1995). Hence, there may well have been some historic use and/or ancient cultural importance attached to the site. The site has received only cursory archaeological evaluation.

11. Jurisdiction [G1]

The name of the government authority with: (a) territorial jurisdiction over the site, e.g. state/province, region or municipality etc.; and the name/description of the authority with (b) functional jurisdiction for conservation purposes, e.g., Department of Environment, Department of Fisheries, traditional owners, etc.

Territorial jurisdiction

Administratively, the island forms part of the Lavan Rural District in Kish District, Bandar-E Lengeh County, Hormozgan Province (http://en.wikipedia.org/wiki/Shidvar Island).

Functional jurisdiction

As a wildlife refuge, the site is one of the national protected areas under the control of the Department of the Environment (DOE).

Within the DOE, the Wildlife and Aquatic Affairs Bureau is the legally authorized section for research on wildlife species, in general (Iran National IOSEA Report, http://ioseaturtles.org/report.php).

As a part of Hormozgan Island, the provincial office of DOE in Bandar Abbas has the direct authority for the management of the Island.

12. Management authority [G1]

Name, address and contact details of the body responsible for the direct local conservation and management of the site.

Department of Environment,

Provincial Office in Hormozgan Province

Postal adress: Azadi Blvd., South Resalat Bandar-Abbas

Phone: +98761-6660824

13. Current protected status and governance framework [G1, S4]

Describe any applicable legislation / regulations (or traditional laws / norms) relevant to the protection / conservation of marine turtles and their habitats at this site, and comment on their effectiveness. Include details of how any incompatible human activities and/or uses of land and sea at the site are prohibited or mitigated.

Mention any nationally relevant protected area status, international conservation designations and, in the case of transboundary sites, bilateral or multilateral conservation measures which pertain to all or part of the site. If a protected area or reserve has been established (at a national/regional level), give the date of its establishment and size. If only a part of the site is included within a protected area, the area of marine turtle habitat that is protected should be noted.

International designations may include sites listed under the UNESCO/World Heritage Convention, Man and Biosphere Reserve Network, Ramsar Convention, other site conservation networks, etc. Where appropriate, list the IUCN (1994) protected areas management category(ies) that apply to the site.

National conservation designations

Protected Area as Wildlife Refuge

The entire island (97 ha) was designated a Protected Area in July 1971 (Scott 1995).

In 1972 the entire island was upgraded to a Wildlife Refuge (Scott 1995).

Based on the "Environmental Protection and Enhancement Act", 1975, specific regulations apply to designated protected areas. These rules protect Sheedvar Island from harmful activities, particularly by keeping the Island free of permanent residents.

National laws

Based on an Executive By-Law under the Game and Fish Law (1967), sea turtles are classified as a 'nationally endangered species' and hunting and harvest are prohibited. As of 2011, the high fines imposed for capturing and collecting turtles and eggs, as well as the information-gathering system in place to identify offenders, were considered to be quite effective for the conservation of marine turtles, in general (Iran National IOSEA Report). Revision of the law increased the fine for killing a turtle from 6,400,000 Rial in 2000 to 30 million Rial (approx. US $1,200) in 2013.

International framework

Ramsar classification

In 1999 the Island was designated as Iran's 20th "International wetland of importance" because of its significance as a nesting and resting site for migratory birds (Scott 1995).

This designation helps to protect the Island from industrial activities and settlement by the local people as well as other activities which could have negative effects.

Important Bird Area

The Island has been identified as an "Important Bird Area" by Birdlife International (Evens, 1994, Scott, 1995).

Although these designations under international frameworks are focused on protecting the birds of Sheedvar Island, they provide basic protection for the Island, particularly protection of turtle nesting beaches and adjacent habitats where birds roost and nest. However, there have been no studies on the effectiveness of the various national and international laws.

14. Land/sea tenure/ownership [G1]

Provide details of ownership of the site and ownership of immediate surrounding areas (e.g., state, provincial, private, etc.) which may have a bearing on the conservation of the site. Explain any terms that have a special meaning in the country or region concerned.

The Government owns the land and sea of Sheedvar Island and the surrounding waters (Scott 1995, update from A. Mobaraki).

15. Socio-economic values and land/ocean uses and activities within the vicinity of the site [EB4, G5, S2, S5, S6]

Describe, in general terms, the principal social and economic values of the site, including human activities and land uses (past, current and planned) within the vicinity of the site (e.g., agriculture, fishing, resource extraction, grazing, water supply, urban/industrial development, tourism, outdoor recreation, education and scientific research), irrespective of whether or not they are considered to directly impact the conservation of marine turtles. Some indication of the relative importance of each form of land use should be given, whenever possible.

No up-to-date information on the socio-economic value and potential of the site could be found. There may be a low level of fishing and egg collection. In recent years, the Island has been an important recreational zone for local people and some visitors. Traditionally, the Island has been part of the daily life of local people in Lavan Island and their beliefs as the local people use Sheedvar as a recreational place in cool weather and do some activities such as fishing and camping.

As of 1999, the collection of bird eggs has occurred on the Island (Scott, 1995).

In 2003, a few boat owners from Lavan were able to earn a living on the island by being hired by the research project on turtles. This has changed to a regular occurrence because some local boats from Lavan Island are hired every year in support of the tagging and research project on the turtles. The people also help the researchers with the tagging and research projects (Mobaraki, 2006).

The island is being used as a fishing site and a resting place for fishermen, and as a harbour for fishing boats and ships (Mobaraki, 2006).

As of 2012, no one lived permanently on Sheedvar Island and, in principle, any visit to the island needs official permission from the DOE, because it is a protected area (Mobaraki, 2006). The adjacent island, Lavan, also has a very low human population (Mobaraki, 2006).

All year long, especially after August, the island has some visitors who fish using hooks. They mostly hire boats from the local people from Lavan and main lands. The collection of bird and turtle eggs was common before protection, but after fines were increased for harvesting eggs, and the introduction of some legal and educational activities, the amount of egg collection appears to have decreased. Improved legislation has helped to prevent sand mining too.

However, there seems to be no up-to-date, or systematic information on socio-economic values, past or present. Fishing and collection of bird eggs (possibly also collection of turtle eggs), as well as sand mining, may have been traditional activities, and could still be occurring at reduced levels.

Engaging the local communities from Lavan Island in the works provides some income for the people while familiarising them with turtle conservation issues.

16. Factors adversely affecting the site's overall ecological character, as well as threats to marine turtles and their habitat at the site [EB4, S2]

Describe the human and natural factors negatively affecting the ecological character of the site, both within and in the vicinity of the site. These may include existing, new or changing activities/uses, major development projects etc., which have had, are having, or may have a detrimental effect on the natural ecological character of the site. For all adverse and change factors reported, supply measurable/quantifiable information (if such data exist), as well as information on the scale, extent and trend of the change factor and its impact. For example, describe in terms of the percentage of coastline (or other area) modified/affected by a particular threat; for egg collection, describe in terms of number of nests, per species, per year. Mention also data-deficient threats, where a threat is known to be present but is not quantified. Collectively, this information should provide a basis for monitoring of ecological character of the site.

In summary, the only threat to the site's overall ecological character or to marine turtles and their habitats that could be identified at the site concerns activities occurring in the vicinity of the site, namely bird egg (and possibly turtle egg) collection and oil pollution. However, available information is not systematic or up to date. Visitors, in any form, cause some problems to the site, for example by dumping of debris, destruction of vegetation, putting fire and so on.

On the Island

As of 2003, no human activity on the island was identified as a threat to its ecological character: the Island was uninhabited; the adjacent island, Lavan, had a very low population; most of the active people in the area were young and had no interest in the turtles of Sheedvar and their eggs; few boats were operating in the area, and there were no natural predators on the island (Source:

http://ioseaturtles.org/pom_detail.php?id=3).

As of 2014, as in the past years, visits to the island for recreational purposes by different groups, local and not local, especially in March, have caused some problems resulting in the destruction of nesting sites, cutting of vegetation as well as an increase in the amount of debris. There were some sand mining activities, particularly collection of sand from the beach, which fortunately have been controlled by legal measures enforced by DOE guards, as the mining is forbidden and punishable by fines.

Bird egg collection

Bird egg collection for human consumption was a major problem in the 1970s. Egg collection increased dramatically in intensity by 1976, and continued through1999 but at a lower intensity (Scott, 1995).

As of 2014, because of increased controls and patrols during the nesting season, as well as increased fines, the demand for bird eggs and the intensity of poaching activities have decreased.

Regular presence of research and guard teams on the island during the nesting season of the birds and turtles and some arrests of the egg poachers, as well as some public awareness activities, have been the main reasons for the decrease in egg harvests (Mobaraki, 2006).

Within the Island's surroundings/catchment

As of 2011, there was a threat of oil pollution from the oil terminal on Lavan Island (about 2 km away) and from the oil tankers in the nearby shipping lanes (Mobaraki, 2006). All the activities are controlled by the Health, Safety and Environment (HSE) unit of the oil company and DOE experts, cooperatively.

As of 2014, this situation still constituted a potential serious threat to the site in case of an oil spill or an accident involving the ships, but there has not been any record of such event. All the activities are under the control and supervision of HSE and DOE, and the transportation activities are not on a large scale.

17. Conservation and management interventions taken [G2, G3]

Describe conservation and management interventions already taken at the site to address threats. Note that some of this information may have been recorded in abbreviated form in the IOSEA Site Data Sheets, available online (www.ioseaturtles.org/reporting). Any application of coastal and marine spatial planning, or integrated coastal/marine zone management planning, involving or affecting the site should be noted.

Describe the management planning process for the site, including the state of implementation of any management plan that has been developed and approved for the site. Describe any other conservation measures taken at the site, such as restrictions on development, management practices beneficial to wildlife, closures of hunting, etc. (Note that information on any monitoring schemes and survey methods should be given under point 19, below.)

Where applicable, describe the involvement of local communities and indigenous people in the participatory management of the site, including co-management activities, surveillance and enforcement, and performance evaluation.

As of 2014, the only existing site-specific conservation plan contains annual tagging and research work on the site during the turtle nesting season. .

In 2007, cleaning of the main nesting beaches on Sheedvar and Nakhiloo Islands was carried out through a project funded by IOSEA-MoU Secretariat (US$ 2,500). For the programme, some promotional materials such as notebooks, pens, key chains, T-shirts and leaflets, were produced and disseminated. Local people and some representatives from the Iran Offshore Oil Company and Refinery took part in the programme. Some of the materials were also distributed to the people of Lavan Island.

The Island is officially designated as one of the country's "Protected Areas", thus receiving specific legal attention, based on national regulations. This prevents any destructive activities that may threaten the life of the wildlife species, including the sea turtles. Moreover, as a Ramsar Site, Sheedvar receives recognition for its international importance to bird populations, which helps to protect sea turtles as well.

18. Conservation interventions proposed, but not yet implemented [G2, G3]

Provide details of any concrete conservation measures that have been proposed, or are in preparation, for the site, including any proposals for legislation, protection and management. Summarize the history of any longstanding proposals that have not yet been implemented, and differentiate between those proposals that have already been officially submitted to the appropriate government authorities and those which have not as yet received formal endorsement, e.g., recommendations in published reports and resolutions from specialist meetings. Also mention any management plan that is in preparation but has not yet been completed, approved or implemented.

Recommendations were made following field surveys carried out in the 1970s, 1980s, and 1990s by the specialists from the DOE, including the erection of appropriate notices on the island, but these have not been fully implemented as of 2014 (http://ramsar.wetlands.org/Database/Searchforsites/tabid/765/language/en-US/Default.aspx)

There are plans for the cooperative work of DOE and oil companies to manage Sheedvar Island and final agreements are being negotiated.

19. Current / proposed scientific research and monitoring [G4]

Describe any current and/or proposed scientific research on marine turtles and their habitats, as well as information on any special facilities for research. In particular, describe past and current marine turtle monitoring activities at the site (e.g., tagging, satellite tracking, genetic sampling, nesting and foraging ground surveys, ongoing beach monitoring, etc.). Describe the survey methodology in sufficient detail to allow for an assessment of its efficacy. Indicate the number of years of continuous monitoring, and whether data have been used to estimate trends in the size of the management unit. Cite relevant published papers in support of the submission.

There have been several studies focused on the marine turtles of Sheedvar Island.

Studies undertaken before 2003

The DOE investigated breeding sea turtles in the early 1970s and also during the 1990s (Scott, 1995). Before 2003, despite its special importance, regular scientific studies had not been conducted on Sheedvar Island, in particular on its sea turtles, and most of the existing reports (e.g., Kinunen and Walczack 1971) were out of date (http://ioseaturtles.org).

Mobaraki (2004) visited the Island from 6 to 11 May 2003 to collect basic data on the hawksbill turtles and their nesting activity. The nesting season on the island begins in March and ends in June. During the six-day visit, 30 nesting emergences were observed, most of which were "false crawls", but seven nests with eggs were recorded. The nesting emergences took place between 8 pm and 1 am. The mean weight of the eggs was 27.23 g (n= 320 eggs, 7 clutches with on average 98 eggs per clutch). The mean diameter of the eggs was 37 mm (n= 492 eggs, 7 clutches). 40 tracks were counted on a 3 km beach (Mobaraki, 2004, 2006). Since then, research on turtle nesting and hatching success has been conducted regularly every year.

Flipper Tagging programmes

2005 – ongoing IOSEA programme (Mobaraki, 2010)

In 2005, the DOE received a donation of 1,000 titanium turtle flipper tags (with serial numbers and the address of DOE) from the IOSEA Secretariat (Mobaraki, 2005, 2006). The tagging programme concentrated on Sheedvar Island and nearby Hendourabi Island (Mobaraki, 2005, 2006).

As of 2010, about 500 hawksbill turtles and about 20 green turtles have been tagged at these and four other sites, namely: Nakhiloo, Ommolkaram, Hengam and Chabahar (Mobaraki, 2010). During April and May 2005, short visits (four days) were made to Sheedvar, in which 13 nesting hawksbills were tagged and data on nesting were collected (Mobaraki, 2004, 2005). On a return visit to Sheedvar Island during the nesting season of 2006, which lasted 25 days, from mid-April to mid-May, 30 nesting hawksbill turtles were tagged (Mobaraki, 2010). One male green turtle was also captured in shallow coastal waters and tagged. Females were measured and weighed and clutch sizes were recorded, as well as mean egg weight and diameter for 15 eggs in each of the 16 studied clutches (Mobaraki, 2010).

Since starting the tagging programme, the Island has been visited annually for short periods during the nesting season and up to now, about 200 nesting hawksbills have been tagged at Sheedvar Island.

2010 "Gulf Turtle Project" - Satellite tracking programme

Between 2010 and 2012, satellite tracking of hawksbill populations was conducted for the first time in Iran through a regional cooperative project initiated by WWF-EWS and MRF (Marine Research Foundation) in the Persian Gulf region. In 2010, five nesting hawksbills were tagged with Satellite Telemetry equipment on Sheedvar Island. In 2011, another five hawksbills were tagged on Nakhiloo Island, Bushehr Province (Pilcher et al., 2014). The results of the project reveal that all the tagged turtles settled in the foraging grounds in the southern parts of the Gulf, leading to the conclusion that there is a very strong relationship between the nesting sites along the Iranian coast and the feeding grounds in the southern portion of the Persian Gulf (Pilcher et al., 2014).

2010 Genetic studies

The four main nesting sites in Iran (Hendorabi Island, Sheedvar Island, Nakhiloo Island and Ommolkaram Island) were studied for at least two years (samples for 2005 and 2007), and 100 skin tissue samples were taken and preserved in Dimethyl sulfoxide (DMSO). For each sample, sequencing was conducted using new PCR primers that amplify a longer segment of DNA than was done in previous work (an 800 bp mtDNA control region was amplified instead of about 400 bp). The sites were grouped into two main regions consisting of Sheedvar–Hendourabi to the west and Ommolkaram–Nakhiloo to the east. The tests indicated that the two areas have significantly different haplotype frequencies and six and eight haplotypes were recognized in the sites, respectively (Mobaraki et al. 2010). As there were some differences between Sheedvar and Hendourabi, more detailed genetic work is needed to clarify the population structure of the turtles nesting on these islands.

Parts of the results were presented at International Sea Turtle Symposia and other meetings:

1) Mobaraki, A., FitzSimmons, N., 2008. Studies on Sea Turtles and their situation in Iran. First International Congress: Documenting, Analyzing and Managing Biodiversity in the Middle East, Aqaba, Jordan.
2) Mobaraki, A., FitzSimmons, N., and Jensen, M., 2010. Reproduction and Genetic Study of Hawksbill Sea turtles in Iran. 30th Annual Sea Turtle Symposium, Goa, India (p. 144). http://www.nmfs.noaa.gov/pr/pdfs/species/turtlesymposium2010.pdf
3) Vargas, S., Jensen, M. P., Mobaraki, A., Santos, F.R. Broderick, D., Mortimer, J., Limpus,

C., Whiting, S., FitzSimmons, N., 2010. Phylogeography of the hawksbill turtle (*Eretmochelys imbricata*) from the Indo-Pacific region. 30th Annual Sea Turtle Symposium, Goa, India (p. 155). http://www.nmfs.noaa.gov/pr/pdfs/species/turtlesymposium2010.pdf

Some more genetic sampling has been conducted, and further analysis is awaiting financial support to carry out lab work.

Monitoring studies of the nesting behaviour of hawksbill turtles

The team of Zare et al. (2012) investigated nest-site characteristics and clutch success of hawksbill sea turtles nesting on Sheedvar Island. They found that hawksbills tended to cluster their nests at a specific elevation above sea level, and that emergence success was highest for nests nearest to this preferred elevation, declining at higher and lower elevations. These results suggest that elevation might be an important cue for nest-site selection in this population (Zare et al., 2012).

Future research activities

Annual visits to Sheedvar Island during the breeding season (10-15 days in May) are still regularly organized in cooperation with national offshore oil and refinery companies. Each year 10-20 turtles have been tagged at this site. In the last attempt, in 2014, 30 turtles, both greens and hawksbills, were tagged at Sheedvar, increasing the tagged turtles at the site to about 200. Clutch size, measurments of the eggs and nesting turtles and the number of normal and yolkless eggs are the regular data that are being collected.

In summary, research on marine turtles on Sheedvar Island began in earnest in 2003, and has included nesting beach studies, nesting biology, tagging, genetics, and satellite tracking. Hawksbills are be the most abundant turtles nesting at Sheedvar, and the number of nesting turtles per year seems to be less than 50, based on the tagged turtles in each year.

20. Current / proposed communication, education, and public awareness activities [S3]

Give details of any existing and/or planned site-based programmes, activities and facilities for communication, education and public awareness, including training. Comment on potential opportunities for future educational and outreach activities at the site.

In 1999, it was reported that copies of a poster about Sheedvar's biodiversity and a booklet about the environment of Hormozgan Province including a section related to Sheedvar Island had been prepared and distributed by the Hormozgan Provincial Office in cooperation with the Shahid Beheshti University.

Another educational and awareness-raising activity includes a sea turtle stamp, which was published in 2007 in the country and distributed in local offices.

Some other papers and reports on turtles and their habitats have been published in the public domain and general magazines in the country in the past years such as: Game and Wildlife magazine (Mobaraki, 2012) and the Journal of Biology Development (Abtin and Mobaraki, 2013). These are widely distributed magazines/journals in the country and provide people some basic information about sea turtles and their importance.

The sustained research activities on Sheedvar Island, with involvement of local people, has made them familiar with the importance of the site and its species. With the support of the IOSEA MoU, a clean-up project on a turtle nesting site in Sheedvar was conducted in 2007 with the active participation of local people from Lavan Island, providing them with brochures, T- Shirts, key holders and pens.

Meetings with the HSE section of the oil construction and refinery industries have resulted in their

commitment to support public education and awareness-raising activties. They have covered the expenses of some activities, like preparing brochures and awareness-raising materials as well as covering some field work expenses and providing accommodation.

In summary, available information on public education and awareness-raising initiatives for marine turtle conservation on Sheedvar Island seems to be limited to a poster and booklet from 1999 and a beach cleaning project in 2007.

21. Financial resources available for management of the site and other activities [G5]

Identify human and financial resources (including in-kind contributions) available to support immediate and near-term activities, as well as resources available to sustain site-based activities in the longer-term (e.g. in relation to monitoring, management interventions, surveillance and enforcement, and performance evaluation).

All of the activities related to the monitoring and research on turtles and the conservation management of the site, as a part of DOE responsibilities, are supported and funded by the DOE. Some field work and related support (such as boat hire, meals, local people) is provided by the Iranian offshore oil company and the refinery company (HSE and other sections). These bodies are in close cooperation in this regard.

22. Additional resource needs at the site [G5]

Where specific needs are identified (e.g. skilled personnel, specialised training, facilities, field equipment etc.) indicate how marine turtle conservation activities are presently impaired on account of their unavailability (e.g. inability to carry out regular surveys, to conduct certain types of research, to monitor certain parts of the range etc.) This information may be useful for compiling a general picture of deficiencies and resource needs that could be presented to potential programme sponsors.

The two main problems for turtle conservation generally in Iran are the lack of staff and the lack of equipment to check and control specific areas (Mobaraki, 2006). Based on agreements with local industries, through provincial and main offices of DOE, some good cooperation has been initiated. We try each year, to cover more sites on longer trips and expand our educational and awareness-raising plans. These actions will lead to a decrease in the threats to the turtles and their habitats. Based on some local measures, the oil companies expressed their interest in supporting the conservation and research activities in Sheedvar Island.

23. References [e.g. S1, G2, G4]

List key references relevant to marine turtle records and to the site, including management plans, major scientific reports, and bibliographies. When a large body of published material on the site is available, only the most important references need be cited, with priority being given to recent literature containing extensive bibliographies. Reprints or copies of the most important literature should be appended whenever possible. Provide website addresses of references where available.

Abtin, E. and Mobaraki, A., 2013, Marine Turtles of Iran, Biology Development Journal, (In Farsi), Vol 1, No 27, Iran National IOSEA Report. Online: http://ioseaturtles.org/report.php.

Kinunen, W. and Walczak, P. 1971. Persian Gulf sea turtle nesting surveys. Report of the Sport Fisheries and Marine Biology Persian Gulf Sea Turtles job completion report. Pp. 1-12.

Mobaraki, A. 2003. Sea Turtle Status in Iran. Pp. 154. In: Proceedings of the twenty-third annual Symposium on sea turtle biology and conservation: 17 to 21 March 2003, Kuala Lumpur, Malaysia. N J. Pilcher, Compiler. *NOAA Technical Memorandum NMFS-SEFSC-536*.

Mobaraki, A. 2004. Marine turtles in Iran: Results from 2002. *Marine Turtle Newsletter*, 104:13.

Mobaraki, A. 2004. Nesting of the hawksbill turtle in Shidvar Island, Hormozgan Province, Iran. *Marine Turtle Newsletter*, 103:13.

Mobaraki, A. 2004. Green Sea Turtle Nesting in Iran. *Marine Turtle Newsletter* 104:11 (also posted onwww.ioseaturtles.org website).

Mobaraki, A., and Elmi, A. M. 2005. First sea turtle tagging programme in Iran. *Marine Turtle Newsletter*, 110: 6-7.

Mobaraki, A. 2006. "Sea turtle study and situation in Iran". Marine conservation forum, Abu Dhabi, UAE. PowerPoint Presentation available: http://uae.panda.org/ews wwf/achievements/marine_conservation_forum/

Mobaraki. A. 2010. Results of Sea turtle Study in Iran and The Conservation Needs. Pp. 10. In: The 2nd EWS-WWF Marine Conservation Forum, Abu Dhabi, United Arab Emirates, 14th until the 16th of December 2010.

Mobaraki, A. Fitzsimmons, N., and Jensen, M. 2010. Reproduction and Genetic Study of Hawksbill Sea turtles in Iran. 30th annual sea turtle symposium, Goa, India. Pp. 144-145. In: 2013. Proceedings of the Thirtieth Annual Symposium on Sea Turtle Biology and Conservation. Blumenthal, J., Panagopoulou, A., and Rees, A. F., compilers. *NOAA Technical Memorandum NMFS-SEFSC-640*: 177p.

Mobaraki, A., 2012, Ancient Mariners (In Farsi), Game and Wildlife Magazine, No 125

Nabavi, S. M. B., Zare, R., and Vaghefi, M. E. 2012. Nesting Activity and Conservation Status of the Hawksbill Turtle (*Eretmochelys imbricata*) in Persian Gulf. *Journal of Life Sciences*, 6(1): 74-79.

Pilcher, N. J., Antonopoulou, M., Perry, L., Abdel-Moati, M., Al Abdessalaam, T.Z., Albeldawi, M., Al Ansi, M., Al-Mohannadi, S. F., Al Zahlawi, N., Baldwin, R., Chikhi, A., Das, H. S., Hamza, S., Kerr, O. J., Al Kiyumi, A., Mobaraki, A., Al Suwaidi, H. S., Al Suweidi, A. S., Sawaf, M., Tourenq, C., Williams, J., and Willson, A. 2014. Identification of Important Sea Turtle Areas (ITAs) for hawksbill turtles in the Arabian Region. *Journal of Experimental Marine Biology and Ecology* 460: 89-99.

Ramsar Information Sheet 1999: http://ramsar.wetlands.org /Database/Searchforsites/tabid/ 765/language/en-US/Default.aspx.

Sadeghi-Zadegan, S. 1997. Report on the Field Trip to the Shidvar Island (29 June -2 July 1997). Internal Report, Department of the Environment, Tehran, LR. Iran.

Scott, D.A.(Edit) 1995, A Directory of the Wetlands in the Middle East, IUCN, Gland, Switzerland and IWRB, Slimbridge, UK,

Zare, R., Vaghefi, M. E. and Kamel, S. J. 2012. Nest Location and Clutch Success of the Hawksbill Sea Turtle (*Eretmochelys imbricata*) at Shidvar Island, Iran. *Chelonian Conservation and Biology* 11(2): 229-234.

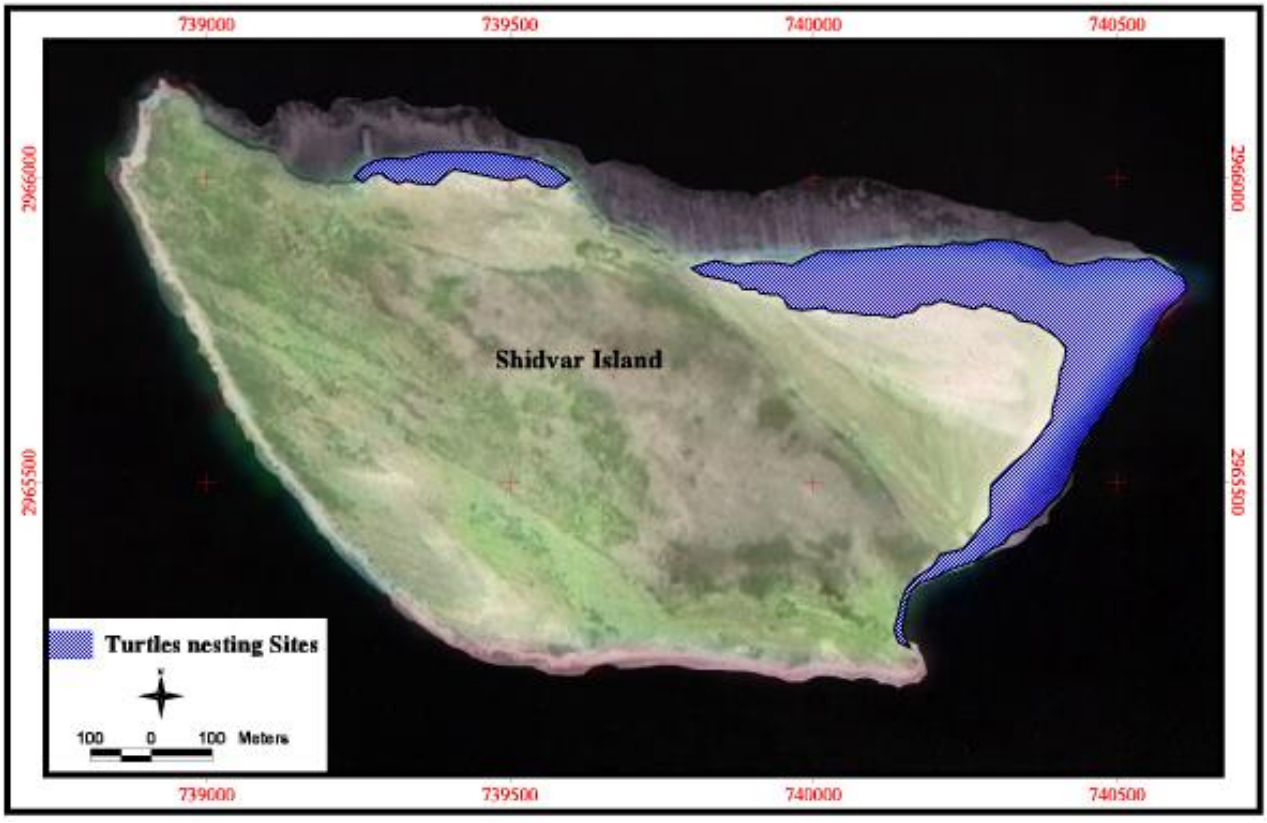
24. Site map [N2, N3]

The most detailed and up-to-date map of the site available should be appended to the Site Information Sheet in digital and/or hardcopy format. The ideal site map will clearly show the area boundaries of the site, scale, latitude, longitude and compass bearing, administrative boundaries (e.g., province, district, etc.), and display basic topographical information, the distribution of the main site habitat types and notable hydrological features. It will also show major landmarks (towns, roads, etc.). Indications of land use activities are especially useful.

If applicable (and available), provide a zoning scheme to indicate areas where certain activities that might be incompatible with turtle conservation are permitted, buffer zones, and areas where such activities are not permitted (i.e. sanctuary areas).

The optimum scale for a map depends on the actual area of the site depicted. Generally the map should have a 1:25,000 or 1:50,000 scale for areas up to 10,000 ha; 1:100,000 scale for larger areas up to 100,000 ha; 1:250,000 for areas exceeding 100,000 ha. In simplest terms, the site should be depicted in some detail. For moderate to larger sites, it is often difficult to show detail on an A4 sheet at the desired scale, so generally a sheet larger than this is more appropriate. While an original map is not absolutely necessary, a very clear image is desirable. A map exhibiting the above attributes will be more suitable for scanning.

The attached map / aerial photograph are the only ones currently available.



The main turtle nesting beaches on Sheedvar Island are shown in blue.