

# Status of leatherback turtles in Pakistan

By Fehmida Firdous

## 1. The legal protection status for leatherback turtles

### 1.1. Overview

Marine turtles, including leatherback turtles are declared as protected species under provincial Wildlife Ordinance & Acts - The Sindh Wildlife Protection Ordinance 1972 and the Baluchistan Wildlife Act 1974

#### Legislation in Sindh

- The Sindh Wildlife Protection Ordinance 1972: protects all turtles and eggs in Sindh and dictates steep fines for killing turtles (Frazier 1980; Salm 1975a; Salm 1975b; Mohiuddine 1975)
- Second Schedule of The Sindh Wildlife Protection Ordinance 1972:
  - All marine turtles of the genera *Dermochelys*, *Chelonia*, *Caretta*, *Eretmochelys*, *Lepidochelys* are listed as "Protected Animals"
  - The definition (as given on page 2 of the Ordinance) of "Protected Animals" means a wild animal specified in the Second Schedule. (See clause (j) of section 2 of SWPO).
  - Ordinance pertains to:
    - Hunting of any protected animal (Subsection (i), (iii) of Section 7 of SWPO).
    - Animals found dead or killed or caught unlawfully:
    - Any protected animal or game animal which is found dead or dying or which has been killed or caught otherwise than in accordance with the provision of this ordinance or any meat or trophy thereof shall be the property of Government (Section 9 of SWPO).
    - Transfer of animals, trophies or meat (Subsection (1), (2) of Section 11 of SWPO).
    - Import and export of animals, trophies or meat (Subsection (1), (2) of Section 12 of SWPO).
  - Penalties: See clauses (i), (ii), (iii) of Subsection 1 under Section 17 of SWPO.
  - First published on 13th. April, 1972, then some amendments were made up to 1 June 2001 and reprinted in June 2003.
  - This Ordinance can be seen on website [www.sindhwildlife.com.pk](http://www.sindhwildlife.com.pk) click on "about us" and then go on SWD Ordinance

#### Legislation in Baluchistan

##### Third Schedule of The Baluchistan Wildlife Protection Act (BWPA) 1974

- All marine turtles of the genera *Dermochelys*, *Chelonia*, *Caretta* and *Eretmochelys* are listed as "Protected Animals"
- The definition (page 3 of the Act) of "Protected Animals" means all animals, birds, reptiles mentioned in the third schedule appended to the act (clause (I) of section 2 of BWPA).
- Ordinance pertains to:
  - Restrictions on hunting of any protected animal (Subsection (a&b) of Section 8 of BWPA).
  - Animals found dead or killed or caught unlawfully:
  - Any protected animal or game animal which is found dead or dying or which has been killed or caught otherwise than in accordance with the provision of this ordinance or any meat or trophy thereof shall be the property of Government (Section 9 of BWPA).
  - Wild birds, animals that shall not be killed, hunted or captured (Section 10 of BWPA).
  - Transfer of animals, trophies or meat (Subsection (1), (2) of Section 12 of BWPA).
  - Import and export of animals, trophies or meat (Subsection (1&2) of Section 13 of BWPA).
- Penalties: See Clause (i), (ii), (iii) of Subsection 1 under Section 19 of BWPA 1974.
- First published on 21st August 1974, amendments were made on December 13th 1977 This Act is not available on Website. If desired, a copy will be sent through post, please send the exact postal address.

## 1.2 Management agencies responsible for marine turtle conservation

Operational level	Name and type of agency
National level	-
State level	Sindh Wildlife Department, Govt of Sindh, Karachi

## 2. Nesting populations

### 2.1 Overview

The leatherback turtle is among five species of marine turtles reported to occur in the territorial waters of Pakistan (Ghalib and Zaidi 1976), but its nesting has not been recorded (Ghalib and Zaidi 1976).

#### *Historical Evidence*

Following are the past references showing possibilities of leatherback turtle nesting or occurrence along Pakistan coast.

- No specimens of leatherback turtle were examined by Minton from west Pakistan waters but through the kindness of J. A. Anderson he obtained a photograph of an adult specimen that was found stranded at Hawkes Bay beach near Karachi during June of 1958 (Minton 1966).
- If accounts of local fishermen are to be believed, the leatherback occasionally nests on islands near the mouth of the Indus (Minton 1966).
- During a survey conducted along Makran coast from 19-22 January 1987, he contacted someone in Ormara who said that leatherbacks *Dermochelys coriacea* (which he identified from photograph) were occasionally caught in nets, (Groombridge 1987).
- *Dermochelys coriacea* (Linn), leatherback turtle is included among five other species of marine turtles have so far been reported to occur in the territorial waters of Pakistan (Ghalib and Zaidi 1976), but its nesting was not reported from anywhere in Pakistan by Ghalib and Zaidi (1976).

#### *Current Situation*

##### *Summary*

Leatherback turtle nesting has not been recorded so far from Pakistan. Surveys have been conducted to assess nesting distributions for all marine turtles, but no leatherback turtle nesting has been observed. The following survey methods have been employed:

- Ground Survey Regular Patrolling of nesting beaches on foot along Sindh coast on daily basis covering particularly Hawkes Bay and Sandspit nesting grounds.
- Irregular Patrolling of nesting beaches along Baluchistan beaches on foot.
- Occasional off shore surveys by hiring a boat along Sindh and Baluchistan.

##### *Sindh Province*

Ground surveys have been conducted by Sindh Wildlife Department to identify marine turtle nesting species along the beaches of Sindh coast in Pakistan since 1979.

- The beaches surveyed during this period include Korangi Creek, Ibrahim Hydri, Clifton, Kaemari, Manora, Sandspit, Hawkes Bay, Buleji, Paradise Point and Capemonz.
- The beaches of Sandspit and Hawkes Bay are the most suitable nesting grounds of turtles.
- Nesting of leatherback turtle has not been observed along any of the above-mentioned beaches to date.
- However, two dead specimens of male leatherback turtles were observed, one during 1988 at Sandspit beach (Firdous 1989) and the other in 1989 near Paradise Point. (For more information: See section *Foraging Populations* & accompanying photos).

##### *Baluchistan coast*

Occasional ground surveys have also been conducted along Baluchistan coast by WWF Pakistan since 1998.

- The beaches surveyed included Sonmiani, Ormara, Pusni, Gwadar and Jewani; but leatherback turtles have not been recorded (dead or alive) (Per. Com. with Mr. Attaullah Pandrani, Conservation Officer, WWF Pakistan Field Office, Jewani, Baluchistan).
- A few aerial surveys were conducted along Baluchistan coast (Groombridge, 1988) and by Sindh Wildlife Department during 1997 but evidence of leatherback turtle nesting was not recorded.

### 3. Foraging populations

All data presented in the following sections refer to the two leatherbacks stranded (as reported by Firdous). They are here assumed to be foraging rather than breeding animals.

Summary data pertaining to these two stranded carcasses are provided below, as reported by Fehmida Firdous to J.A. Mortimer (*in litt.* 29 November 2005):

1. Male leatherback at Sandspit (Firdous 1989):
  - Size: Curved carapace length = 213.4 cm, curved carapace width = 121.3 cm, Tail length 45.4 cm
  - Date of observation: 05 September 1988
  - Reported Cause of death:  
A very high level of decomposition indicated that the specimen had died a few days before, perhaps due to shark attack as there was a prominent cut mark seen on ventral side of left rear flipper.
  
2. Male leatherback at Paradise Point:
  - Size: Curved carapace length = 125 cm, curved carapace width = 95 cm
  - Date of observation: 25 April 1989
  - Reported Cause of death:  
There was a very big hole on the proximal end of right front flipper. Both of the back flippers were also damaged indicating the attack of shark or by another big animal.

*Editors note: Given the poor condition of these carcasses when they washed ashore, the injuries which are consistent with shark attack, could have occurred post death. Hence anthropogenic factors cannot be ruled out.*

#### 3.1) Details of leatherback turtle foraging area census or tagging results such as tag recovery data

There have been no studies conducted on foraging populations of leatherback turtles in Pakistan.

#### 3.2) Seasonality of leatherback turtles caught or seen in foraging areas

Data is available for two stranded turtles; one in April and the second in September

#### 3.3) Approximate size range of leatherback turtles caught or seen in foraging areas

The stranded leatherback turtles were 213.4cm in length and 125 cm in length.

#### 3.4) Information on diet of leatherback turtles

No available data

#### 3.5) Other biological studies conducted on leatherback turtles in foraging areas

Not applicable

#### 3.6) Threats to foraging populations of leatherback turtles

No threats to leatherback turtles have been recorded in Pakistan

#### 3.7) Fisheries bycatch of leatherback turtles and the fisheries involved

During a survey conducted by Groombridge (Groombridge 1987) along the Makran coast from 19-22 January 1987, fishermen from Ormara indicated that leatherbacks *Dermochelys coriacea* (which were identified from photograph) were occasionally caught in nets (Groombridge 1987). Fisheries in Pakistan have implemented TEDs and seasonal closures of some fisheries to minimise their impacts on marine turtles (Pakistan National Report to IOSEA 2005)

#### 3.8) Other activities being undertaken to improve the conservation of leatherback turtle foraging areas

There are no other activities underway, or planned to specifically improve the conservation of foraging populations of leatherback turtles in Pakistan. However, a variety of education materials have been developed to raise the awareness of local people of marine turtles such as teachers, school children fishermen and the media (see Firdous 2000 for details). However, regular offshore, ground and aerial surveys should be conducted along Sindh and Baluchistan coast to collect information on leatherback distribution, abundance and threats.

#### 4. References

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