

Sea turtle hatcheries in Kachchh, Gujarat

R.L. Meena, J.V. Vyas and R.S. Jadeja

Forest Department, Government of Gujarat,
Mandvi, Kachchh-Bhuj, Gujarat 371001, India.
Email: <mailto:cfkut Chad1@sancharnet.in>

Gujarat State has the longest coastline in the country covering more than 1600 km. Olive ridleys and green turtles nest on the Gujarat coast (Sunderraj *et al.*, 2006a), with a predominance of olive ridleys on the Kachchh coast (Sunderraj *et al.*, 2006a,b). Though incidental mortality is low on this coast, turtles face a significant threat from depredation of nests by animals and humans, and from coastal development (Sunderraj *et al.*, 2006a, b). Given the importance of these marine reptiles and the threats they face, *in-situ* hatching and *ex-situ* conservation programmes have been in operation in Gujarat since 1985-86. Hatcheries were established at Mandvi and Nalia, but the programme was strengthened after surveys by the Gujarat Institute of Desert Ecology (GuIDE) as part of the GOI-UNDP sea turtle project (Sunderraj

et al., 2006a). The eggs are currently collected by the forest department staff and hired trained personnel. These eggs are being buried in the hatchery under the same conditions as the wild. A total of 8546 olive ridleys, 182 green turtle and 50 leatherback hatchlings have been successfully hatched and released into the sea from hatcheries in Mandvi and Nalia in Kachchh district.

The efforts being made by the forest department need to be strengthened. *In-situ* protection needs to be more effective with proper protection at site and regular monitoring by the field staff. Public awareness programmes for the fisherfolk and other coastal inhabitants regarding the conservation significance of these threatened species will reduce the predation of nests.

Table 1: Collection of eggs and hatching success from 1985 to 2006 at Mandvi and Nolia hatcheries

Year	Site	No. of eggs collected	No. of Successful hatchlings			Success Rate (%)
			Olive ridley	Green turtle	Leatherback	
1985-86	Mandvi	–	–	–	–	–
	Nalia	65	43	–	–	66.00
1986-87	Mandvi	–	–	–	–	–
	Nalia	134	100	–	–	74.62
1990-91	Mandvi	1271	778	–	–	61.25
	Nalia	–	–	–	–	–
1991-92	Mandvi	2038	1230	–	–	60.35
	Nalia	–	–	–	–	–
1992-93	Mandvi	3391	2251	–	–	66.39
	Nalia	–	–	–	–	–
2000-01	Mandvi	4399	1963	110	–	40.00
	Nalia	321	105	–	50	48.00
2001-02	Mandvi	1273	404	–	–	31.73
	Nalia	210	138	–	–	65.00
2004-05	Mandvi	1446	750	–	–	51.00
	Nalia	533	368	–	–	69.00
2005-06	Mandvi	556	416	–	–	75.00
	Nalia	135	–	72	–	53.33
Total		15637	8546	182	50	54.50

Table 2: Collection and hatching of the turtles during the year 2005 – 06 and 2006 – 07

Site	Collection of eggs		Survival of hatchlings		Survival percentage	Remark
2005-06						
Mandvi	Date	Number	Date	Number		Survival is
Seashore	26.07.05	96	05.09.05	93	96.87	more if
-do-	28.07.05	138	05.09.05	134	97.10	collection is
-do-	09.08.05	112	23.09.05	67	59.82	in July.
-do-	20.08.05	102	03.10.05	58	56.86	
Nana-Layja	21.08.05	108	04.10.05	64	59.25	
Sub-total	–	556	–	416	74.82	
Naliya	08.12.05	135	28.01.06	72	53.3	
Total		691		488	70.62	
2006-07						
Mandvi	23.07.06	124	15.09.06	68	54	

Literature Cited

- Sunderraj, S.F.W, J. Joshua & V.Vijaya Kumar. 2006a. Sea turtles and their nesting habitats in Gujarat. In: *Marine turtles of the Indian subcontinent* (Eds. K. Shanker & B.C. Choudhury), pp. 156-169. Universities Press, Hyderabad, India.
- Sunderraj, S.F.W. & J. Joshua. 2006b. Status report on UNEP – CMS sea turtle project on the Gujarat coast, India. *Indian Ocean Turtle Newsletter* 3: 6-10.