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A REPORT ON THE OLIVE RIDLEY, *LEPIDOCHELYS OLIVACEA*
(ESCHSCHOLTZ) [TESTUDINES : CHELONIIDAE]
OF BAY OF BENGAL

By

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(With 4 Text-figures, 4 Plates and 5 Tables)

INTRODUCTION

No definite data and information are available on the present status of marine turtles of Indian Coast. Hirth & Carr (1970) have expressed their disappointment on the inadequacy of knowledge on the ecological geography of marine turtles of the Western Indian Ocean which is also true for the entire Sea Coast of India. Smith (1931), while mentioning the distribution and range of sea turtles in the Indian Coast, gave some general information; Valliappan and Pushparaj (1973), Valliappan and Whitaker (1974) and Murthy and Menon (1976) gave some preliminary reports on sea turtles.

From Zoological Survey of India two turtles surveys were carried out by the author in 1975 and 1976 in the Orissa Coast and he visited some turtle breeding areas in that region. These surveys revealed that the most common and commercially important turtle occurring in the Bay of Bengal is the *Lepidochelys olivacea* (Eschscholtz) and it is the most exploited species of sea turtles in its breeding or nest laying season in the Bay of Bengal.

The work of Schulz (1975) on the ecology and biology of Olive Ridley in Surinam is very important and extensively deals with the nesting aggregation of *L. olivacea* along with some other sea turtles in the Atlantic coast of America. In this context the works of Pritchard (1969), Carr (1952) and Zwinenberg (1976) are also valuable and helpful for studying the Olive Ridleys.

So far no important earlier report on the nesting ground of Pacific Ridley in the coast of Bay of Bengal is available. In the present paper the author summarises results of his preliminary survey of such grounds and has also tried to ascertain the status of this turtle and their colonies

in some of the areas surveyed. The systematic account and general information on this species, with a key to other species of sea turtles will be helpful to the workers on the sea turtles of the Indian Coast.

SYSTEMATIC ACCOUNT

1843. *Lepidochelys* Fitzinger, *Syst. Rept.*, p. 30.
(Type : *Chelonea olivacea* Eschscholtz)

The family Cheloniidae, which includes the Pacific Ridley or the Olive Ridley, contains four genera, namely *Chelonia* Latreille, *Lepidochelys* Fitzinger, *Caretta* Rafinesque and *Eretmochelys* Fitzinger. The genus *Chelonia* can at once be separated from the rest of the genera in the family by the presence of one pair of prefrontal scales. The genera *Lepidochelys* and *Caretta*, likewise, can be distinguished from *Eretmochelys* in having five or more laterals and also in the precentrals being in contact with the laterals. The remaining two genera, however, continued to be confused with each other for a long time even after the publication by Deraniyagala (1933). This was caused by the broad similarity in characters, and the apparent similarity leading to the resultant taxonomic confusion and for a long time the two were identified as *Caretta*, commonly known as Loggerhead.

Generic characters : Laterals from five to nine ; four enlarged inframarginals, some of which perforated by a pore near the hind margin ; precentral and lateral laminae usually in contact ; pterygoid bones markedly broadened anteriorly, with strong ectopterygoid processes ; in the lower jaw a strong median elevation at the posterior edge of the bony alveolar surface ; nural bones eleven to fifteen in number.

A key to all the genera, species and subspecies of the family Cheloniidae is given below with the help of which *Lepidochelys* could be easily identified even to the subspecies level.

Key to the genera, species and subspecies of the family CHELONIDAE

- 1 (4) One pair of prefrontal scales. Lateral laminae 4. ... Genus *Chelonia* Latreille
- 2 (3) Colouration above predominantly brownish ; shell margin not markedly indented above hind limb ; shell less chunky and deep, especially from the middle of the laterals towards periphery ... *Chelonia mydas mydas* (Linné)

(Atlantic and Caribbean)

- 3 (2) Colouration above predominantly greenish or olive brown ; shell often markedly indented above hind limb ; chunky and often with the laterals completely straight from the margin of centrals ... *Chelonia mydas agassizii* Bolourt.
 (Pacific Coast of America, throughout Indian and Indo-chinese water including Andaman and Nicobar groups of Islands).
- 4 (1) Two pairs of prefrontals. Laterals 4-9.
- 5 (6) Laterals in 4 pairs ; precentral not in contact with the lateral ; laminae of the carapace usually conspicuously imbricated ... Genus *Eretmochelys* Fitzinger
Eretmochelys imbricata (Linné)
 (In all the tropical waters widely scattered along the Atlantic Ocean, Indian and Indo-chinese waters).
- 6 (5) Laterals in 5 or more pairs ; precentral in contact with 1st lateral ; snout relatively short and broad.
- 7 (10) Inframarginal bridge with 4 enlarged scales ; colour gray or olive green. ... Genus *Lepidochelys* Fitzinger
- 8 (9) Colour dorsally olive ; laterals usually in more than five pairs ; each inframarginal with a pore ; limbs with one or two claws. ... *Lepidochelys olivacea olivacea* (Eschscholtz)
 (Indian and Pacific Oceans ; West coast of Africa, West coast of America, Pacific coast or Mexico and Costa Rica).
- 9 (8) Colour dorsally dark grey ; laterals usually in five pairs ; inframarginal poreless ; limbs three clawed. ... *Lepidochelys olivacea kempii* (Garman)
 (Waters of Massachusetts, England, Ireland and Azores).
- 10 (9) Colour brown or reddish brown ; bridge with three enlarged inframarginals. Genus *Caretta* Rafinesque
- 11 (10) Marginal laminae averaging 12 on each side ; limbs two or one clawed ... *Caretta caretta caretta* (Linné)
 (Atlantic and Mediterranean).
- 12 (11) Marginal laminae averaging 13 on each side ; limbs two clawed ... *Caretta caretta gigas* Deraniyagala
 (Indian and Pacific Oceans).

Lepidochelys olivacea olivacea (Eschscholtz)

1829. *Chelonia olivacea* Eschscholtz, *Zool. Atlas* pt. 1, p. 2, pl. 11.
(Type locality : Manila Bay, Philippine Islands)
1931. *Caretta caretta olivacea*, Smith, *Fauna Bri. Ind.*, 1 : 71 & 72.
1933. *Lepidochelys olivacea*, Deraniyagala, *Ceylon J. Sci. (B)* XVII : 62-72.
1951. *Lepidochelys olivacea olivacea* Carr, *Hand Book of Turtle*, pp. 341-410.
1976. *Lepidochelys olivacea*, Zwinenberg, *Bull. Maryland Herpt. Soc.* 12 (3) : 75-95.

Description : The carapace in adult is more depressed than in other chelonians and slightly longer than broad. In dorsal view it looks almost circular or rather broadly heart-shaped which is expansively coradate in both the sexes without any trace of carina. The carapace is fairly high, highest point being anterior to the middle but it is flattened or even dished in along the centrals. The margin is more or less serrated posteriorly, formed of 27, rarely 25 shields. The variation of marginals are from 12 to 14 in each side. The nuchal or precentral is generally in contact with the first costal. The vertebrals or centrals range from five to nine and also the costal or the laterals display a corresponding number of pairs of asymmetrical arrangement. The costals vary in number 6 to 8, occasionally 5 to 9. The numerical arrangement of centrals and costals are variable but the plastral scutes are more or less constant. The plastron distinguishes this turtle from all the other chelonians in possessing a distinct pore on the posterior edge of each of the four enlarged inframarginal scutes or laminae. A similar pore may also occur on the axial lamina.

The head is large and broad, with convex sides to the wide beaks. Due to the characteristic parrot like beak of these turtles they are popularly known as Parrot Beaked Turtles. Each beak possesses edges and these in the adult form an anterior point which blunts with edge. The margin of each beak is nearly V-shaped and the horny upper beak extends to the choanae. The alveolar surfaces of the upper jaw bone smooth and symphysis of lower jaw is very long. There is one enlarged scale on the middle of outer surface of lower jaw. The cephalic scales comprise of two pairs of frontals, the posterior one of which is larger than anterior, a hexagonal frontal usually forming an emargination in the fronto-parietal which is narrower anteriorly and posteriorly, two or three pairs of parietals, interparietal usually wanting, supraocular one to three on each side, the 1st in contact with fronto-parietal, preocular 3 or 4, supraocular ten.

In young specimens the carapace is strongly tricarinate and plastron bicarinate. Usually each flipper is furnished with two claws but many adults possess only one upon the anterior limb. The scales are juxtaposed and margins are subimbricate in adolescent.

The tail of the mature male is much longer than that of the female, extending at least as far as the tips of the posterior stretched flippers and not exceeding the hind rim of carapace in the latter. In the male the single claw on each anterior limb is much stronger and more curved. The middle part of plastron in the male is more concave and the lateral profile slopes more gradually from the highest point of back and down to the hind shell margin.

Colour : The carapace colour is uniform olive without mottling or veriegation found in other species. Due to its colouration it is popularly known as Olive Ridley. The plastron is light greenish yellow or greenish white. The legs and neck are olive above, lighter below.

The young are of more or less uniform black with a faint white margin to the limbs and carapace. The adolescent is dark grey dorsally, pale yellow ventrally and cheeks and beaks pale green.

Remarks : The Olive Ridley, *Lepidochelys olivacea olivacea* of the Indian Coast is often confused with the Atlantic Ridley, *L. olivacea kempii* or even with the Atlantic Loggerhead, *Caretta caretta caretta* (Linnè) and Pacific Loggerhead, *C. caretta gigas* Deraniyagala. Many considered this species conspecific with the Atlantic *C. c. caretta* which they considered to be more variable in the Indo-Pacific region than the Atlantic. It was not until 1933 that the skeletal anatomy, vomer separating the maxillaries and by the lateral processes on the pterygoids, of the two genera were shown to be very different from one another although externally they appear very similar.

Distinction between *L. olivacea kempii* and *L. olivacea olivacea* is also very narrow. In the adult *L. o. kempii* the carapace colour is greyish and the enlarged inframarginal scutes are at times three on one or both the sides (Carr. 1952). In the typical subspecies the carapace is greenish olive, there are almost invariably four pairs of enlarged inframarginals and presence of a single inframandibular scale. Otherwise the two subspecies agree in other respects including bony alveolar ridge upon the palate, skeleton, subcircular outline of carapace, the bluish green dorsal pigmentation of head and limbs and the pale greenish yellow plastron. The pigmentation of the young of these two forms are almost black and differs feebly from one another. According to Deraniyagala (1961) the colouration of the first recorded young by Lourence (1951) and of four hatchlings from Vera Cruz kept in the Kansas University Museum of Zoology were as dark as the young ones of the forma *typica* but differed from them in lacking the white margin to the carapace.

The geographic continuity of ranges of these two subspecies has not been demonstrated within the Atlantic and Indo-Pacific forms though there may be potentiality of breeding contact around South America but certainly not around Cape Horn. According of Schmidt and Inger (1957) this potentiality does not seem to be realised with present zonation of sea in temperate turtles as the Atlantic forms are clearly distinguishable even by their minor characters.

Distribution : This species is distributed widely in the warmer parts of tropical and subtropical East and West Atlantic, Indian and Pacific Oceans. The northern limit of it in the Western Pacific is southern Japan and in the Eastern Pacific (W. coast of America) it is from Baja California to Chile. According to Carr (1961) the Ridelys occur regularly in the 650 miles long coast from Kino to San Blas including much of the eastern shore of Gulf of California and to the coast south of the mouth of the gulf. Deraniyagala (1939) mentioned its distribution from the East Atlantic and west coast of Africa. This species not only nests on the west coast of Africa from Senegal to Congo but Schulz (1975) has reported it in the northern and north eastern coast of S. America, in the coast of Guyana, Surinam and French Guiana. This species shows a remarkable distribution in the Atlantic being virtually absent in the Caribbean region. According to Smith (1931) it is generally distributed in the Indian waters and abundant in the vicinity of Andaman Islands and near the coast of Sri Lanka but rare in the Gulf of Siam. In the East Indies the species appears to be more abundant than the Loggerhead and it seems this species reach remote islands of the midway chains in the Pacific. In short Pacific Ridley ranges from the west coast of Africa, Ceylon and the East Indies to the Pacific coast of America.

Range and status : In this section I have tried to mention the nesting localities of the species and its present status if it was available with special interest in the Indian and Pacific Oceans regions from the available literature in my hand. Pritchard's (1969) work in this respect will further improve our knowledge but due to its absence I have mostly depended on the work of Frazier (1975). Detailed information from China, South Japan, East Indies and Australia is not available to me for its detail study of distribution and present status.

East Atlantic and west coast of Africa—Banana (East Atlantic) ; Ivory coast, Gabon and Congo one specimen from each of the place was examined by Babcock (1930).

Western Indian Ocean Region : Frazier (1975) has grouped this region in two territories, the islands and the mainland : *Ethiopia*—recorded in

the last century. *United Republic of Tanzania*—may not be uncommon, at least nest on Maziwi. *Mozambique*—a substantial population, notably in the north where they nest. *Kenya*—may nest and there may be a fair sized breeding population in Ungwana Bay.

Republic of South Africa—nest very rarely. *Sultanate of Oman*—nest on Masirah. *Iran*—common specially in the Persian Gulf and nest on Lavan Island. *Pakistan*—Ridleys continue to use their traditional nesting sites around Karachi beaches and from all available evidence the egg laying females are more numerous than available beach areas so that some earlier egg clutches often being partly excavated or disturbed by subsequent nesting females which in turn encourages predatory dogs (Roberts, 1977). *Malagasy Republic*—there is substantial population in the south west, but they do not nest. The estimated recent catch is 2,400. *Sri Lanka*—The most common species and several thousand may nest yearly. Deraniyagala (1939) has mentioned several nesting grounds.

Indian Coast : In the Zoological Survey of India record only of two specimens have been mentioned which were collected from the Kerala beach by Ferguson in 1891 and about another collection of Asiatic Society of Bengal, the collection locality generally mentioned as Bay of Bengal. In the Western Coast, Greaves (1933) recorded this species nesting in the Malad-Merve beach of Maharashtra. It also nests in the Konkan and Trivandrum beach, Kerala Coast. Ridleys have been reported from some small Islands of Gulf of Mannar. The east coast of India (Bay of Bengal) is a very important nesting ground for this species. There are mass nesting places in the Madras beach, West Bengal and Orissa Coast [Satbhya, Gahirmatha, Konarak (Chandrabhaga)]. According to Bhaskar (1978) waters off India's coast, Lakshadweep islands, situated 120-200 miles off Kerala's Coast (in five islands of Amindivi) this species is predominantly common. According to him (Bhaskar 1979) some islands in the Gulf of Kutch in Western India are nesting ground of Olive Ridley.

Pacific Coast of North and South America : Mass nesting sites are there in this coast from Baja California to Chile, particularly in the coast of Mexico and Costa Rica (Pritchard, 1969). Honduras nesting occurs but in Colombia there may be possibility. *West Malaysia* : All the five genera of sea turtles occur along the coast of west Malaysia but *L. olivacea* nests in number. Its eggs are in good demand which sells 8.10 cents each (Moll, 1976).

Western Atlantic, northern and eastern South America : In Surinam mass nesting occurs at Eilanti, Galibi and Bigisanti beach. Another

nesting place is east of Marowijne river of French Guiana (Schulz, 1975). It was recorded earlier from Caracas, Venezuela.

Philippines : The type specimen was collected from Manila Bay.
New Britain : Some broods of eggs had been collected many years ago.

NESTING GROUNDS OF OLIVE RIDLEY IN THE BAY OF BENGAL

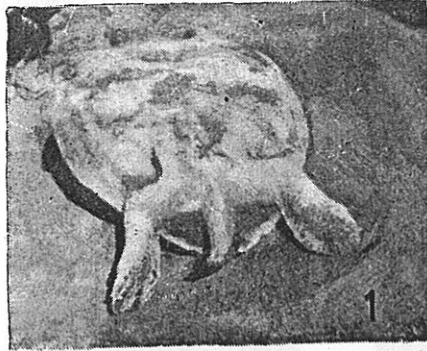
Tamilnadu—(1) Valiappan and Pushparaj (1973) made a preliminary survey in the Tuticorin area of Tamilnadu which is an area important for the turtle industry in South India. The stretch of beach between Tiruchendur and Idinthakaral is an important nesting area of Ridley and some years ago great numbers of nests could be seen along beaches near Manappod. (2) *Madras to Kalpakkam area*—Valliappan and Whitekar (1974) undertook a survey of Olive Ridleys in the 50 kms coastline of the above mentioned area. In the Madras coast the fishermen consider the turtle a god or "Sami". The turtles are mostly released into the sea when caught in a fishing net. But the "Kattukarans" such as Harijans, Villis, Irulas, Kurvikars and some villagers living along the coast collect eggs for personal consumption and sale. The Ridleys are known as "Kadalaamai" in this area. Though the present status of the species in the Madras coast is not known, it is certain that Ridleys are the most common nesting turtles.

It is also reported that Ridleys also nest in the coasts of Porto Novo, South Arcot Dist. and Point Calimere, Thanjavur Dist.

It is estimated that during 1975-76 (December-March) nesting season roughly 4,500 eggs were collected from 42 nests of Madras Coast.

Orissa Coast : Surveys conducted by the Zoological Survey of India in the Orissa Coast have revealed four areas as the major nesting ground of Ridleys, in the Orissa Coast, such as sea side deltoid area of Brahamani and Baitarani rivers, Puri-Balukhand, Konarak-Chandrabhaga and Chandipur-Burablang estuary (Text-fig. 1).

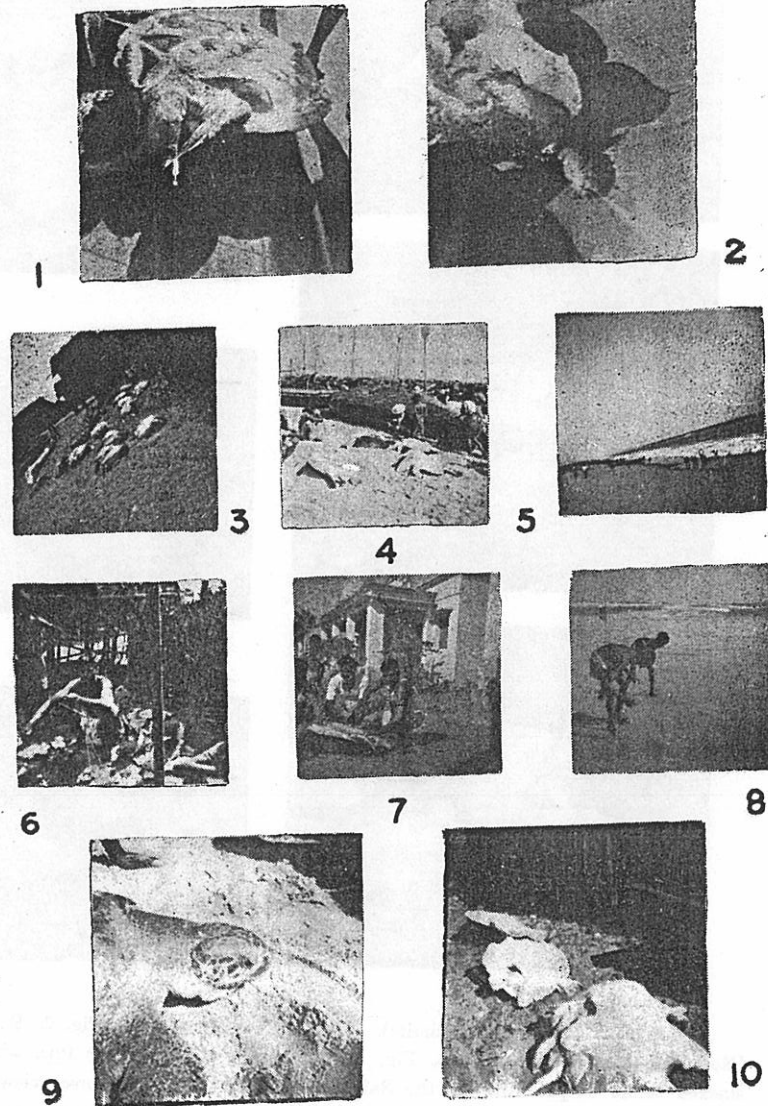
(1) *Sea side Delta of Brahamani-Baitarani*—Two sea side places within the Cuttack Dist. of this area known as *Gahirmatha* and *Satbhya* are very good nesting grounds of Ridleys. *Gahirmatha*—This place is nearly 35 km. east of Chandbali, Balasore Dist. at the mouth of Dhamara river where it meets the sea. There are also some islets at the mouth of the river which are also good nesting grounds. During the nesting season in 1975 it is reported that 33,000 Olive Ridleys were marked in three nights on 8 km. stretch of the sea coast near Wheelers Islands in this area (Kar 1980). Experiment on a clutch of eggs of this species has been carried out at this place (Biswas *et al.* 1977). The tagging



Lepidochelys olivacea (Eschscholtz). . Fig. 1. ♂, Ventral view. Fig. 2. ♀, Ventral view (Note Comparative tail length). Fig. 3. A stacking of turtles at Puri where turtles are stacked before despatching to the Railway Station. Fig. 4. Dorsal view of a freshly caught turtle. Fig. 5. Author and an Assistant taking measurement of a ♂ and a ♀ turtle. Fig. 6. Author and the local Veterinary Surgeon examining and consulting over a turtle.

BISWAS

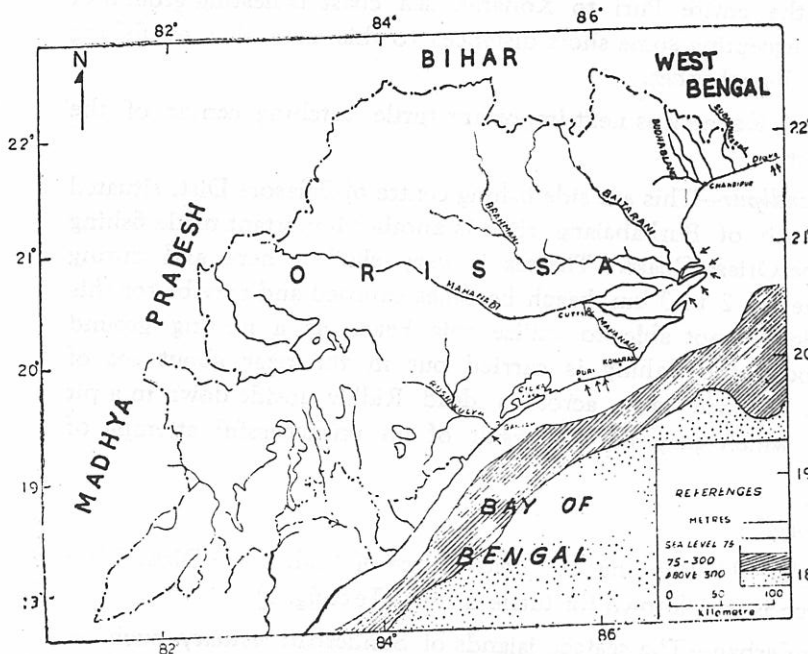
PLATE VIII



Lepidochelys olivacea (Eschscholtz). Figs. 1 and 2. Two stages of extended penis of two ♂♂ ; (1) fully extended, (2) partially extended with wart like tubercles at the end portion. Fig. 3. Entire view of a stacking yard. Fig. 4. Author is examining freshly landed turtles at Puri beach. Fisherwomen are waiting to carry them to the stacking yard. Fig. 5. A part of the typical beach where the species lay its eggs. Fig. 6. A fish seller at Chandbali fish-market selling turtle meat. (Chandbali inland port on the Baitarani river). Fig. 7. Assistants are busy dissecting one specimen. Fig. 8. A part of the beach at Astrang. The beach is less sloping comparatively from the Puri beach. Fig. 9. Head shield of a specimen. Fig. 10. Plastron depression of ♂.

and marking operation is now being carried out here by the Forest Dept. of the State Government.

(2) *Satbhya*—This sea coast place of Cuttack Dist. is nearly 35 km. south east of Chandbali and it is only approachable from here upto Dangmal (Vitorkonika) by boat or launch and from there after crossing



Text-fig. 1. Map showing the coast line of Orissa and part of West Bengal. Arrow marks indicate the nesting ground of the species.

the branch of Brahamani river one has to walk down the sea coast. Due to the difficulty of communication the Satbhya coast is most undisturbed nesting ground of Ridley in the Orissa Coast.

In the nesting season the egg laying density may be so intensive in this place that even it may reach one nest per square meter.

(3) *Puri-Balukhand*—This area is the most important turtle fishing center of the Orissa Coast. The southern part of Puri after Chakrathista is known as Balukhand and the sea side Casurina Reserve Forest of this area is reported as a nesting ground of Ridleys.

(4) *Konarak-Chandrabhaga*—Chandrabhaga, 22 miles east of Puri is nesting ground and some clutches of eggs were collected at this place in 1975 (Biswas *et al.*, 1977) where a small stream known as Kushabhadra meets the sea. Ridleys are nesting all along the coast from Chandrabhaga to Astharang, one fishing centre between Konarak and Puri,

Practically the entire Puri to Konarak sea coast is nesting ground of this species excepting some short distances to this area due to fishing and human disturbances.

After Puri, Konarak is next important turtle catching center of the Orissa Coast.

(5) *Chandipur*—This sea side fishing centre of Balasore Dist. situated on the mouth of Burhabalang river is another important turtle fishing center of the Orissa Coast. The sea is very shallow here and during low tide nearly 2 to 3 km. beach becomes exposed and may be for this reason turtles are not able to utilize this beach as a nesting ground though good turtle fishing is carried out in the near about sea of Chandipur. I once came across a dead Ridley upside down in a pit of a beach which may be the result of an unsuccessful attempt of nesting.

West Bengal :

(1) *Digha*—This is the sea coast place of Midnapore Dist., West Bengal which is well known for turtle fishing (Text-fig. 1).

(2) *Sunderban*—The seaface islands of Sunderban estuary such as Lothian and Sagar islands are nesting ground of this species. Hatchlings and eggs have been collected from these islands.

REMARKS ON THE WEATHER AND PHYSIOGRAPHY OF THE NESTING
BEACHES IN THE BAY OF BENGAL

The study of weather and physiography of nesting beaches and the adjacent sea of the Bay of Bengal is very important and essential to understand and explain the seasonal migration, nesting, incubation etc. of the Olive Ridley coming for nesting in the coast of Bay of Bengal.

The present investigation shows that *Lipidochelys olivacea* is the only dominant extensively occurring sea turtle of the Indian subcontinent. Therefore, it is presumed that weather condition and physiography of Indian coast is suitable for the purpose of their nesting. In this chapter I have tried to compile some data on weather condition and physiography of the region keeping in view that it will be useful to the workers if investigations are carried on in relation to these data. Though I was not able to work in detail the species in relation to the data presented but it has been suggested in the preceding chapters that there is a relation of starting the breeding season with the on set of the north east monsoon from the last week of November and continuing the same till last week of January. Incubation period of eggs ends with the on set of south west monsoon in the middle or 3rd week of

June. Further, prevailing temperature of the beach directly dependent on the atmospheric temperature is one main factor of controlling the duration of incubation period of eggs.

The beach condition is another important factor to induce the Olive Ridley for selecting their nesting ground in the Bay. During my surveys I have found the surface condition of the Chandipur beach in the Orissa coast and Digha beach in the West Bengal are most unsuitable for their nesting though these two places are good turtle fishing centres. The sea is very shallow in these two places and long distances in the sea bed from the coast become exposed during the low tide. The beach becomes harder after the exposure due to muddy soil mixed with sand. Sandy beach is most suitable for digging out their nest holes.

Table 1. Annual Rainfall in Orissa coast according to Ray and Ray (1974)
1964-1971

Month	Y E A R S							
	1964	1965	1966	1967	1968	1969	1970	1971
	(In Millimetres)							
January	—	0.5	63.6	—	2.77	—	8.32	15
February	—	63.8	27.1	27.43	53.84	5.70	45.61	15
March	—	22.6	1.8	34.35	5.21	13.71	75.43	3
April	—	30.5	64.5	16.55	24.54	51.36	7.82	376
May	38.2	25.5	26.7	8.88	23.66	99.13	131.66	459
June	592.7	25.9	249.4	67.42	202.00	138.37	478.25	575
July	437.0	417.0	201.2	140.10	253.00	296.16	238.20	812
August	425.5	206.8	144.1	130.35	247.00	380.83	175.65	650
September	219.6	210.7	138.5	273.10	177.45	245.90	325.23	991
October	135.6	79.4	112.6	88.42	172.41	35.86	85.46	656
November	25.8	—	104.6	7.70	59.07	62.38	30.70	501
December	—	—	0.3	—	—	—	—	—
Total	1874.7	1082.7	1134.4	794.30	1363.80	1329.40	1600.33	5362

Table 2. Average monthly air temperature (C°)
at Chandipur Base

Month	Average Range C°	
	Minimum	Maximum
September	23.8	35.5
October	21	33
November	21	31
December	17	29
January	15	27
February	17	30
March	21	33
April	22	35
May	25.5	35.5

Ocean currents originating from the Indian Ocean flow along this coast principally in two directions; from north to south during December to May and from south to north from June to November, but according to Sewell (1929) the flow of the surface current during March to May is from south to north and according to Wyrtekis (1961) the flow of surface current in February is from south to north which agrees with the observation of Sewell. The general circulation of surface water in August is from north to south along this coast. During the December-January period, there is a shift in current direction along the coast of the Bay upto December, there is northerly flow of warm water, which originates from the Indian Ocean. From December there is a northerly flow reversal of the current, with the direction shifting from north to south. Consequently, there is gradual overlapping by the cold current from the north of the warm, but strong current from the south. Perhaps, due to this reason the upper strata of water remains cold and the lower one is warm during December-January period.

Salinity : The general salinity of water recorded (Chandipur Base) from December 1971 showed a slow increase from 22.8°/00 in December 1971 to 34.6°/00 in May, 1972.

Table 3. Salinity Fluctuation in Coastal Waters

<i>Month</i>	<i>Average Salinity (°/00)</i>
December	22.8
January	25.0
February	26.9
March	30.6
April	31.5
May	33.6

SOME NOTES ON THE NATURAL HISTORY, ECOLOGY AND BIOLOGY
OF THE RIDLEY

Common name : The generic name *Lepidochelys* means "scale turtle". Unlike the other sea turtles the Olive Ridley or the Pacific Ridley has more than five costal scales or shields along the sides of the carapace which may go up to a dozen, arranged irregularly.

In the East African coast the Olive Ridley is called "Kigemge" by the Bajun people. According to Carr (1961) the Pacific form which ranges from Sri Lanka and the East Indian to the Pacific coast of America is known in southern Mexico and central America generally by the word "Couama" but actually the term is an old caribbean name used for