



ON A COLLECTION OF SOME MOLLUSCA FROM CAUVERY ESTUARY, TAMIL NADU

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INTRODUCTION

The Cauvery river is India's fourth largest river, draining about 89,600 sq. km (Jayaram *et al.*, 1982). The river originates at Talakaveri, Kodagu district of Karnataka and flows generally south east and finally emptying into the Bay of Bengal. Since historical times the river water is extensively utilized for agriculture, fisheries, irrigation and navigation purposes. In recent years they have been further subjected to many multi-purpose hydro-electric and other projects. As a result, a number of old and new barrages, weirs, anicuts or dams, have been constructed across the river. It is considered as the lifeline of the ancient kingdoms and modern cities of South India. The Cauvery estuary, located along the east coast of India, is a part of the Cauvery river basin (Ramanathan *et al.*, 1988). The river bifurcates into two large branches, the Kollidam (Coleroon) and Cauvery at Grand Anicut (a dam near Trichirapalli).

Mollusca is one of the most diverse groups of animals on the planet, with at least 50,000 living species and also second only to Arthropoda in numerical abundance (Wikipedia: January, 2014). A part of almost every ecosystem in the world, molluscs is extremely important members of many ecological communities. They have colonized and adapted all possible habitats from deep sea to high mountains. They are more abundant in the littoral zones of tropical seas.

Gastropods and Bivalves constitute 98% of the total population of mollusca and they inhabit land, freshwater and marine environment and play a crucial role in maintaining the integrity of various ecosystems. Certain species of mollusca are of direct or indirect commercial and even medical importance to humans. They have been, important to humans throughout history as a source of food, jewelry, tools, decorations, currency, musical instruments and they inhabit land, freshwater and marine environments and play a and more. Hornell (1921) listed the common mollusks of south India and consequently numerous works on both marine and non marine mollusca have been done in Tamil Nadu by various workers (Radha Krishna, and Janakiram, 1975; Jayaram *et al.*, 1982; Mookherjee, 1985; Benjamin *et al.*, 2009 *etc.*). However there is lack of information regarding its biosystematics and taxonomy distribution. Till now, no studies have been taken up so far in these aspects. Hence, the present study taken up to fill some lacunae by giving some needed information regarding molluscan fauna of the estuary.

MATERIALS AND METHODS

The studied materials were collected from Cauvery estuary during the survey under the project on "Ichthyofauna of Cauvery Estuary, Tamil Nadu and India w.s.r. to their Ecology, Diversity, and distribution pattern" during 2008-2010. Morphology and taxonomy of 129 examples

from the NZC of the centre were studied bio-systematically using relevant literatures and registered. The classification followed is that of Vaught (1989).

SYSTEMATIC LIST OF GASTROPODA

Phylum MOLLUSCA

Sub Class PROSOBRANCHIA

Class GASTROPODA

Order MESOGASTROPODA

Super Family CERITHOIDEA

Family POTAMIDIDAE

Genus *Telescopium* Montfort 1810

1. *Telescopium telescopium* (Linn., 1758)

Family THIARIDAE

Genus *Tenomelania* O. Fisher, 1885

2. *Stenomelania torulosa* (Bruguiere)

Family TURRITELLIDAE

Genus *Turritella* Lamarck, 1799

3. *Turritella attenuata* (Reeve, 1849)
4. *Turrietella duplicata* (Linn., 1758)

Super Family TONNOIDEA

Family TONNIDAE

Genus *Tonna* Bruennich, 1722

5. *Tonna dolium* (Linn., 1758)

Family FICIDAE

Genus *Ficus* Roeding, 1798

6. *Ficus variegata* Roeding
7. *Ficus gracilis* (Sowerby)

Order NEOGASTROPODA

Super Family MURICOIDEA

Family MURICIDAE

Genus *Murex* Linnaeus, 1758

8. *Murex tribulus* Linnaeus
9. *Murex carbonnieri* (Jousseume)
Genus *Rapana* Schumacher, 1817
10. *Rapana rapiformes* (Born)

Family BUCCINIDAE

Genus *Babylonia* Schumacher, 1817

11. *Babylonia spirata* (Linnaeus)

Family MELONGIENIDAE

Genus *Pugilina* Schumacher, 1817

12. *Pugilina (Hemifusus) cochlidium* (Linnaeus)

Family MARGINELLIDAE

Genus *Marginella* Lamarck, 1799

13. *Marginella angustata* (Sowerby, 1846)

SYSTEMATIC LIST OF BIVALVIA

Order ARCOIDA

Super Family ARCOIDEA

Family ARCIDAE

Genus *Anadara* Gray, 1847

1. *Anadara (Scapharca) inaequivalvis* (Bruguiere, 1792)
2. *Anadara (Scapharca) deyrollei* (Joussaeume, 1883)

Order OSTREOIDA

Super Family OSTREOIDEA

Family OSTREIDAE

Genus *Crassostrea* Sacco, 1897

3. *Crassostrea cutackensis* (Newton and Smith, 1912)

Genus *Saccostrea* Dollfus and Dautenberg, 1920

4. *Saccostrea cucullata* (Born)

Super Family PECTINOIDEA

Family PECTINIDAE

Genus *Chlamys* Roeding, 1798

5. *Chlam (Argopecten) tranquebaria* (Gmelin, 1791)

ORDER VENEROIDA

Super Family CARDIOIDEA

Family CARDIIDAE

Genus *Acanthocardia* J.E. Gray, 1851

6. *Acanthocardia coronata* (Schroeter, 1788)
Genus *Trachycardium* Moersch, 1853
7. *Trachycardium asiaticum* (Bruguiere)

Super Family MACTROIDEA

Family MACTRIDAE

Genus *Mactra* Linnaeus, 1758

8. *Mactra (Macrinula) laevis* Chemnitz

Super Family TELLINOIDEA

Family DONACIDAE

Genus *Donax* Linnaeus, 1758

9. *Donax (Hecuba) scortum* (Lin)

10. *Donax (Latona) cuneatus* Lin

Super Family VENEROIDEA

Family VENEROIDAE

Genus *Sunetta* Link, 1807

11. *Sunetta meroe* (Lin)

12. *Sunetta scripta* (Lin)

Genus *Meretrix* Lamarck, 1799

13. *Meretrix casta* (Gmelin)

Genus *Marcia* H. & A. Adams, 1857

14. *Marcia pinguis* (Schroeter)

Genus *Lioconcha* (*Lioconcha*) Mörch, 1853

15. *Lioconcha* sp.

SYSTEMATIC ACCOUNT

A Classified list of 28 mollusca species, arranged systematically along with Systematic accounts is given in this report. The measurement (in cm), diagnosis, number of examples collected, distribution of the species, along with remarks on each species is given. All the species reported is available in the National Zoological Collection of Estuarine biology Regional Station, ZSI, Gopalpur-on-Sea.

Phylum MOLLUSCA

Subclass PROSOBRANCHIA

Class GASTROPODA

Order MESOGASTROPODA

Super Family CERITHIOIDEA

Family POTAMIDIDAE

Genus *Telescopium* Montfort 1810

1. *Telescopium telescopium* (Linnaeus)

1750. *Trochus telescopium* Linnaeus. *Syst. Nat.*, ed. 10: 760.

2003. *Telescopium telescopium*: Subba Rao, *Rec. zool. Surv. India, Occ. Paper No. 192*: 136. Pl. 22, Fig. 3.

Material examined: 1

Measurement: Length: 2.4 cm Breadth: 1.0 cm.

Diagnosis: Shell very large, strongly conical and elevated, heavy and thick, about 14-16 whorls, sutures not distinct. Aperture small and rounded, columella solid, strongly twisted and channeled, outer lip thickened, extended anteriorly as a flare over siphonal canal.

Distribution: Andhra Pradesh, Andaman and Nicobar Islands; Gujarat, Kerala; Puducherry, Odisha, Tamil Nadu, West Bengal.

Family THIARIDAE

Genus *Stenomelania* O. Fisher, 1885

2. *Stenomelania torulosa* (Bruguiere)

1789. *Bulinus torulosa* Bruguiere. *Linnaeus, Encycl. Meth. Vers.*, 1: 332.

1989. *Stenomelania (Stenomelania)*. Subba Rao, *Handbook of Freshwater Molluscs of India*, p. 100, Fig. 202.

Material examined: 5

Measurement: Length: 2.0-7.4 cm Breadth: 0.8-1.8 cm.

Diagnosis: Shell thick, elongate and turreted, number of whorls 12-14, with strong spiral sculpture broken up by transverse lines into rectangular nodules, aperture pyriform, pointed above and rounded below, columellar side somewhat twisted and curved to the right, outer lip crenulated.

Distribution: Andaman, Andhra Pradesh and Tamil Nadu.

Family TURRITELLIDAE

Genus *Turritella* Lamarck, 1799

3. *Turritella duplicata* (Linnaeus)

1750. *Turbo duplicata* Linnaeus. *Syst. Nat.*, ed. 12: 1239.

2000. *Turritella duplicata*, Subba Rao and Dey, *Rec. zool. Surv. India, Occ. Paper No. 187*: 53.

Material examined: 8

Measurement: Length: 6.2-7.8 cm Breadth: 1.5-2.0 cm.

Diagnosis: Shell large, elongated with 18-20 whorls, earlier whorls convex with many fine spiral ridges, the central ridge become elevated into a strong keel in the subsequent 6-7 whorls and spiral ridges become obsolete. The whorls at both end rounded and those in the middle sharply angulated.

Distribution: Andhra Pradesh, Andaman Islands, Goa, Maharashtra, Odisha, Puducherry, Tamil Nadu.

4. *Turritella attenuata* Reeve

1849. *Turritella attenuata* Reeve, *Conch. Icon*, **5**: *Turritella* sp. No. 4. Pl.1, fig. 4.

2003. *Turritella attenuata* Subba Rao, *Rec. zool. Surv. India, Occ. Paper No. 192*: 1. Pl. 22, Fig. 140, pl. 23, fig. 1.

Material examined: 4

Measurement: Length: 10.0-10.1 cm Breadth: 1.8-2.3 cm.

Diagnosis: Shell elongated, large and attenuate with 14-15 rounded whorls; aperture sinuate; sculpture with raised spiral striation almost equal in earlier whorls and in later the middle striations become stronger and other weak and obsolete; whorls strongly keeled in the middle with slopping upper part and curved lower part.

Distribution: Andhra Pradesh, Odisha, Puducherry, Tamil Nadu, West Bengal.

Super Family TONNOIDEA

Family TONNIDAE

Genus *Tonna* Bruennich, 1722

5. *Tonna dolium* (Linnaeus)

1758. *Buccinum dolium* Linnaeus, *Syst. Nat.*, ed. **10**: 140.

2003. *Tonna dolium*. Subba Rao, *Rec. zool. Surv. India, Occ. Paper No. 192*: 195. Pl. 41, Fig 9

Material examined: 1

Measurement: Length: 5.5 cm Breadth: 3.3 cm.

Diagnosis: Shell large and globose, thin, suture canaliculated, spire low, aperture very wide, outer lip thin, columella almost straight, umbilicus open and deep, sculpture with 2 to 4 spiral cord

and occasionally intermediate threads on the penultimate whorl. Ornamented with quadrate or rectangular reddish brown spot upon the spiral cords.

Distribution: Andhra Pradesh, Andaman and Nicobar Islands, Maharashtra, Odisha, Tamil Nadu, West Bengal.

Family FICIDAE

Genus *Ficus* Roeding, 1798

6. *Ficus variegata* (Roeding)

1798. *Ficus variegata* Roeding. *Mus. Bolten*, p.148, sp. No. 1852.

2003. *Ficus gracilis*: Subba Rao, *Rec. zool. Surv. India, Occ. Paper No. 192*: 200 Pl. 42, Figs. 5-8.

Material examined: 3

Measurement: Length: 3.1-7.0 cm Breadth: 2.0-4.3 cm.

Diagnosis: Shell is large and more globes, bulbous at the shoulder, having low and depressed spire; aperture wide and long, columella concave, siphonal canal recurved in the left, sculptured with high spiral ridges with deep grooves in the inter space.

Distribution: India: Andhra Pradesh, Nicobar Islands, Odisha, Puducherry, Tamil Nadu, West Bengal.

7. *Ficus gracilis* (Sowerby)

1825. *Ficus gracilis* Sowerby, *Cat. Tank*, Pl 17.

2003. *Ficus gracilis*: Subba Rao, *Rec. zool. Surv. India, Occ. Paper No. 192*: 199 Pl. 42, Figs. 1-4.

Material examined: 1

Measurement: Length: 5.3 cm Breadth: 2.9 cm.

Diagnosis: Shell large having elongated body whorl with slightly elevated spire; sculptured with strong, flat, widely spaced spiral cords and smaller axial cords; aperture long and wide, outer lip slightly thickened; columella almost straight with a curve in the central; siphonal canal broad and long.

Distribution: Andhra Pradesh, Nicobar Islands, Odisha, Puducherry, West Bengal.

Order NEOGASTROPODA
Super Family MURICOIDEA

Family MURICIDAE

Genus *Murex* Linnaeus, 1758

8. *Murex tribulus* Linnaeus

1758. *Murex tribulus* Linnaeus, *Syst. Nat.*, ed. 10: 746.

2003. *Murex tribulus* Subba Rao, *Rec. zool. Surv. India*,
Occ. Paper No. 192: 230, Pl. 53, Fig. 10.

Material examined: 5

Measurement: Length: 4.5-8.9 cm Breadth:
2-4 cm.

Diagnosis: Shell club shaped, spire high consists of 6-7 whorls, protoconch three and half whorls, sides evenly curved, smooth, suture deep and compressed. Aperture large, sub circular, sulcus broad and shallow, outer lip erect with crenulation on the lower part, sculpture with three spinose, varices on the body whorl with 3-4 strongly nodulose axial costae; siphonal canal with 7 spines, decreased in size towards the anterior end.

Distribution: Andhra Pradesh, Andaman and Nicobar Islands, Gujarat, Kerala, Odisha, Tamil Nadu, West Bengal.

9. *Murex carbonnieri* (Jousseume)

1881. *Acupurpurea carbonnieri* Jousseume, *Length Naturliste*, 44: 345.

1993. *Murex carbonnieri*, Subba Rao, *Rec. zool. Surv. India*,
Occ. Paper No. 153: 33. pl. 4.

Material examined: 1

Measurement: Length: 8.9 cm Breadth: 4 cm.

Diagnosis: Shell club shaped, spire elevated, consist of 7-9 whorls; whorls subangulate, suture simple, deep, crossed by growth lamellae; aperture acute, ovate, outerlip margin crenulated, lower part with small labial tooth, inner lip partly adherent on posterior, body whorl large, preceding the whorls along with the body whorl with three prominent varices, provided with long spines, shoulder spines large, open straight curved terminally, sculpture consists of three prominent spiral cords; siphonal canal and cords, provided with straight spines up

to two third of its length, gradually decreases in length.

Distribution: Andhra Pradesh, Andaman and Nicobar Islands, Gujarat, Karnataka, Kerala, Maharashtra, Odisha, Tamil Nadu.

Genus *Rapana* Schumacher, 1817

10. *Rapana rapiformes* (Born)

1788. *Murex rapiformes* Born. *Index rerum natur. Musei. Caes, Vindob.*, Pl. 1.

2003. *Murex rapiformes*: Subba Rao, *Rec. zool. Surv. India*,
Occ. Paper No. 192: 236, Pl. 56, Figs. 3.

Material examined: 2

Measurement: Length: 6.2-6.9 cm Breadth:
5.1-6.6 cm.

Diagnosis: Shell large, pyriform, spire very low, with four to five whorls, suture deep and canaliculated, body whorl large and inflated. Aperture wide and oval, outer lip margin denticulate, interior lirate, wide and deep umbilicus, canal short and widely open. Sculptured with three nodules spiral ridges, the row on the shoulder bear fifteen open, blunt hollow spines.

Distribution: India: Andhra Pradesh, Andaman and Nicobar Islands, Gujarat, Lakshadweep, Odisha, Puducherry, Tamil Nadu.

Family MELONGENIDAE

Genus *Pugilina* Schumacher, 1817

11. *Pugilina (Hemifusus) cochlidium*
(Linnaeus)

1758. *Murex cochlidium* Linnaeus *Sys. Nat.*, ed: 10: 753

2003. *Pugilina (Hemifusus) cochlidium*: Subba Rao, *Rec. zool. Surv. India, Occ. Paper No. 192*: 274, Pl. 66,
Figs. 3 & 4.

Material examined: 4

Measurement: Length: 5.4-8.6 cm Breadth:
3.2-4.9 cm.

Diagnosis: Shell large, pear shaped solid and heavy, whorls angular, concave from suture to shoulder. Aperture narrow and elongate, outer lip with obsolete ridges, columella without any fold, anterior canal short and broadly open, very narrow and shallow umbilicus, strong fasiole.

Distribution: India: Andhra Pradesh, Andaman and Nicobar Islands, Gujarat, Maharashtra, Odisha, Tamil Nadu, West Bengal.

Family BUCCINIDAE

Genus *Babylonia* Schumacher, 1817

12. *Babylonia spirata* (Linnaeus)

1758. *Buccinum spirata*, *Syst. Nat. ed 10*: 753

2000. *Buccinum spirata*: Subba Rao and Dey, *Rec. zool. Surv. India, Occ. Paper No. 187*: 116.

Material examined: 1

Measurement: Length: 5.0 cm Breadth: 3.2 cm.

Diagnosis: Shell medium in size, solid, ovate, heavy, spire elongate having inflated body whorl, sulcus channeled and deep; aperture ovate, large; outer lip sharp and smooth, strongly flexed at top, umbilicus broad and deep; anterior canal in the form of a oblique notch, posterior canal well developed, broader by parietal callus; light brown blotches on the body surface.

Distribution: Tamil Nadu, Andhra Pradesh, Andaman Islands, Goa, Gujarat, Kerala, Maharashtra, Odisha.

Family MARGINELLIDAE

Genus *Marginella* Lamarck

13. *Marginella angustata* Sowerby

1846. *Marginella angustata* Sowerby, *Thes. Conch.*, 1: *Marginella*, sp. no. 399, pl, fig., 169, 170.

2000. *Marginella angustata* : Subba Rao and Dey, *Rec. zool. Surv. India, Occ. Paper No. 187*: 141.

Material examined: 1

Measurement: Length: 2 cm Breadth: 1.2 cm

Diagnosis: Shell small, cylindrical ovate; spire calloused and flat; aperture narrow, outer lip thickened and smooth, columella with four oblique folds at the anterior end and the anterior most smallest; surface smooth, ash-white with grayish brown spiral bands crossed by bluish axial lines.

Distribution: Andhra Pradesh, Andaman Island, Maharashtra, Lakshadweep, Odisha, Puducherry, Tamil Nadu.

SYSTEMATIC ACCOUNT
OF BIVALVIA

Class BIVALVIA

Order ARCOIDA

Super Family ARCOIDEA

Family ARCIDAE

Genus *Anadara* Gray, 1847

1. *Anadara (Scapharca) inaequalvis*
(Bruguere)

1792. *Arca inaequalvis* (Bruguere). *Encyl. Meth. Vers.*, 1: 106, pl. 305.

Material examined: 21 valves

Measurements: Length: 4-5.1 cm Height: 3.5-4 cm.

Diagnosis: Shell inequivalve, sub quadrate, sculpture with 34/35 flat radial ribs; interstices latticed with raised lines; hinge plate linear, distal teeth larger than central; white brown periostracum of dense short bristles.

Distribution: India, Andhra Pradesh, Andaman Islands, Goa, Gujarat, Kerala, Maharashtra, Odisha, Tamil Nadu.

2. *Anadara (Scapharca) deyrollei* Jousseaume

1883. *Anadara deyrollei* Jousseaume, *Length Natura liste, Islammae*, p. 191.

Material examined: 3 valves

Measurements: Length: 1.4-2.3 cm Height: 2.4-4.2 cm.

Diagnosis: Shell elongate and ovate, inequivalve, side angulated at the dorsal margin, posterior side extended; sculpture with 32-35 radial ribs; umbone elevated.

Distribution: Andhra Pradesh, Maharashtra, Odisha, Tamil Nadu, West Bengal.

Order OSTREOIDA

Super Family OSTREOIDEA

Family OSTREIDAE

Genus *Crassostrea* Sacco, 1897

3. *Crassostrea cuttackensis* (Newton & Smith)

1912. *Crassostrea graphoides* var. *cuttackensis* Newton & Smith, *Rec. Geol. Surv. India*, 42(1): 13, pl. 7 & 8, figs. A & Breadth.

Material examined: 1 valve

Measurements: Length: 2.8 cm Height: 2 cm

Diagnosis: Shell very heavy, bulky, irregularly subcircular to elongate; externally whitish in colour, internally lustrous white; inequivalve; outer surface with radial folds or ribs which may affect the shell margin; hinge without teeth. Postulose chomata often in right valve.

Distribution: Andhra Pradesh, Andaman and Nicobar Islands, Goa, Gujarat, Karnataka, Kerala, Maharashtra, Odisha, Tamil Nadu.

Genus *Saccostrea* Dollfus and Dautenberg, 1920

4. *Saccostrea cucullata* (Born)

1778. *Ostrea cucullata* Born, *Index Rerum Naturalism Musei Cae. Vindob.*, 1778: 100, figs. 11-12.

Material examined: 1 valve

Measurements: Length: 2 cm Height: 2.3 cm.

Diagnosis: Shell stout, very variable in shape and size and very inequivalve; chomata present all around the internal shell margins; outer surface of right valve smoothes, sometimes with distinct radial ribs; abductor muscle scar kidney shaped, more or less posteroventral in position.

Distribution: India: Andhra Pradesh, Andaman and Nicobar Islands, Gujarat, Kerala, Maharashtra, Odisha, Tamil Nadu, West Bengal.

Super Family PECTINOIDEA

Family PECTINIDAE

Genus *Chlamys* Roeding, 1798

5. *Chlamys (Argopecten) tranquebarica* (Gmelin)

1791. *Ostrea tranquebarica* Gmelin, *Syst. Nat.*, ed. 13: 3328.

Material examined: 1 valve

Measurements: Length: 1.6 cm Height: 1.3 cm

Diagnosis: Shell solid, medium sized, length almost equal to high, left valve more convex than right; sculptured with 20-24 rounded radial ribs, gradually narrow towards umbo; almost smooth; anterior ear larger than posterior one, byssal orifice

prominent; variable in colour with white irregular patches.

Distribution: India: Andhra Pradesh, Andaman and Nicobar Islands, Gujarat, Maharashtra, Odisha, Tamil Nadu.

Order VENEROIDA

Super Family CARDIOIDEA

Family CARDIIDAE

Genus *Acanthocardia* Gray

6. *Acanthocardia coronata* (Schroeter, 1788)

1786. *Cardium coronatum* Schroeter, *Encl. Conchyl.*, 3: 53, sp. 4, pl. 7, fig. 13.

Material examined: 1 valve

Measurements: Length: 2.5 cm Height: 2.9 cm.

Diagnosis: Shell sub orbicular, margin nearly rounded, umbo central, elevated; sculpture with 34-38 very low, radial ribs, bearing calcarious raised flanged on their posterior margins, interdigitate at the end; white saffron in colour with weak shades of orange pink posteriorly.

Distribution: Andhra Pradesh, Andaman and Nicobar Islands, Gujarat, Maharashtra, Odisha and Tamil Nadu.

Genus *Trachycardium* Moerch, 1853

7. *Trachycardium asiaticum* (Bruguere)

1792. *Cardium asiaticum* Bruguere, *Encyl. Meth. Vers.*, 1: 224.

Material examined: 7 valves

Measurements: Length: 2.2-5.3 cm Height: 2-5.2 cm

Diagnosis: Shell globose, umbone anterior, elevated; sculpture with 34-36 close set radial ribs, smooth around umbo but lamelliferous towards the posterior margins; hinge condense anteriorly, laterals close to the cardinals, margin crenulated..

Distribution: Andhra Pradesh, Andaman and Nicobar Islands, Gujarat, Maharashtra, Tamil Nadu, West Bengal.

Super Family MACTROIDEA

Family MACTRIDAE

Genus *Maetra* Linnaeus, 17588. *Maetra (Maetrinula) laevis* Chemnitz

1853. *Maetra laevis* Chemnitz, *Conch. Cab.*, **6**: 214, pl. 21, figs. 205 & 206

Material examined: 4 valves

Measurements: Length: 4.9-6.9 cm Height: 1.6-3.1 cm.

Diagnosis: Shell ovately triangular, inequilateral; anterior side rather produced, rounded, posterior truncated; lunule lanceolate, ovate and excavated; sinus of the middle very short, obtuse at the top, obliquely triangular.

Distribution: Andhra Pradesh, Goa, Odisha, Tamil Nadu.

Super Family TELLINOIDEA

Family Donacidae

Genus *Donax* Linnaeus, 17589. *Donax (Hecuba) scortum* (Lin)

1758. *Venus scortum* Linnaeus, *Syst. Nat., ed.*, **10**: 686.

Material examined: 4 valves

Measurements: Length: 4.9-6 cm Height: 3.2-3.5 cm.

Diagnosis: Shell triangularly oblong; umbo posterior, elevated and pointed; ligament short; lunule very prominent, wide and equal on both the valves; sculpture with prominent concentric striae, radial striae prominent; dirty white in colour.

Distribution: Andhra Pradesh, Goa, Gujarat, Karnataka, Kerala, Odisha, Puducherry, Tamil Nadu, West Bengal.

10. *Donax (Latona) cuneatus* Lin

1758. *Donax cuneatus* Linnaeus, *Syst. Nat., ed.* **10**: 683.

Material examined: 2 valves

Measurements: Length: 4.4 cm Height: 2.7 cm.

Diagnosis: Shell subtriangularly oblong; compressed, shining; umbo posterior and elevated; ligament short and dark brown; lunule present on

both the valves; sculpture with fine concentric striae, rugose on the posterior end; purple with white band.

Distribution: Andhra Pradesh, Andaman and Nicobar Islands Gujarat, Maharashtra, Odisha, Tamil Nadu, West Bengal.

Super Family VENEROIDEA

Family VENEROIDAE

Genus *Sunetta* Link, 180711. *Sunetta meroe* (Linnaeus)

1758. *Venus meroe*. Linnaeus, *Syst. Nat.*, **10**: 687.

Material examined: 1 valve

Measurements: Length: 4 cm Height: 3 cm

Diagnosis: Shell sub ovate, anterior end rounded, posterior sub truncate; umbo posterior, beak slightly in front of mid line; sculpture with prominent concentric ridges; escutcheon deeply excavated; beige to lilac with dark brown or yellow brown zig-zag lines throughout the body; inner ventral margin crenulated.

Distribution: Andhra Pradesh, Maharashtra, Odisha, Puducherry, Tamil Nadu.

12. *Sunetta scripta* (Lin)

1758. *Donax scripta* Linnaeus, *Syst. Nat.*, **10**: 683.

Material examined: 1 valve

Measurements: Length: 1.1 cm Height: 0.9 cm.

Diagnosis: Shell wedge shaped; umbo posterior, beak slightly in front of mid lines; anterior end rounded, posterior truncate; sculpture smooth only with growth lines; escutcheon deeply excavated; variable in colour pattern, white or beige, lilac with brown violet zig-zag lines or with deep violet patches; inner ventral margin crenulated.

Distribution: Andhra Pradesh. Goa, Gujarat, Karnataka, Kerala, Odisha, Tamil Nadu.

Genus *Meretrix* Lamarck, 179913. *Meretrix casta* (Gmelin)

1791. *Venus casta* Gmelin, *Syst. Nat.*, **13**: 3278.

Material examined: 26 valves

Measurements: Length: 3.3-5.6 cm Height: 2.9-5 cm

Diagnosis: Shell solid but less heavy than *M. Meritrix*; umbo slightly anterior, beak more attenuated; lunule well developed; variable in shape and colour; muscle scars well impressed, posterior abductor scar slightly larger than anterior; anterior cardinal teeth more strong on left valve; pallial line well impressed, pallial sinus absent.

Distribution: Andhra Pradesh, Karnataka, Kerala, Odisha, Puducherry, Tamil Nadu,

Genus *Marcia* H. & A. Adams, 1857

14. *Marcia pinguis* (Schroeter)

1788. *Venus pinguis* Schroeter, *Nomen. Register*, **10**: 112.

Material examined: 1 valve

Measurements: Length: 4.8 cm Height: 3.9 cm.

Diagnosis: Shell sub ovate, anterior rounded, posterior sub truncate; umbo anterior, beak more attenuated; lunule well defined, depressed and cordate; sculpture smooth with growth lines only; abductor muscle scars almost equal; pallial line deep, pallial sinus well developed; beige with brown, umbonal region grey.

Distribution: Andhra Pradesh, Andaman and Nicobar Islands, Karnataka, Odisha, Puducherry, Tamil Nadu.

Genus *Lioconcha* Morch

15. *Lioconcha* sp.

Material examined: 1 valve

Measurements: Length: 4.9 cm Height: 4.1 cm.

Diagnosis: Shell rounded-ovate, umbones slightly anterior and rounded post dorsal margin, outer surface glossy and very smooth with some fine dark patterns.

Distribution: Tamil Nadu.

DISCUSSION

A total of 28 mollusca species belonging to six Order and 16 families were recorded from the study. Of this 28 species, 13 belong to Class Gastropoda and remaining 15 belongs to Bivalvia. It is found that most of the species studied are marine in habitat, however about ten species which are truly estuarine species viz. *Telescopium telescopium*, *Thiara (Stenomelania) torulosa*, *Anadara (Scapharca) inaequalis*, *Anadara (Scapharca) m deyrollei*, *Crassostrea cutackensis*, *Saccostrea cucullata*, *Donax scortum*, *Donax (Latona) cuneatus Meretrix casta*, *Marcia pinguis* were also recorded during the study from the estuary.

SUMMARY

Taxonomy and biosystematics of 112 molluscan examples collected from Cauvery estuary which was deposited in National zoological collection of the Estuarine Biology Regional Centre, EBRC were studied. A total of 28 mollusca species belonging to six order and 16 families were recorded from the study. Of this 28 species 13 belongs to Class Gastropods and remaining 15 belongs to Bivalvia. It is found that most of the species studied are marine in habitat and only about ten species are truly estuarine species.

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