

## A CHECK LIST OF THE MARINE AND ESTUARINE FISHES OF SOUTH ORISSA, EAST COAST OF INDIA

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### INTRODUCTION

Gopalpur (19° 16'N and 84° 55'E), Ganjam (22° 22'N and 85° 02'E) and Patisonapur (18° 4'N and 84° 25'S) are the main marine fish landing centres in Ganjam district of Orissa state. The fish fauna at these three centres usually comprise the marine and estuarine species which were caught from the Bay of Bengal, a pocket lagoon situated to the north-eastern side of Gopalpur and the two prominent estuarine systems, the Rushikulya and Bahuda river estuaries. Information concerning the systematics of fish fauna from this region are quite scanty. Only Misra (1981) has published a preliminary account on the fish fauna of this region based on his collections made from Berhampur fish market. The present communication reports, the systematics of marine and estuarine fishes of South Orissa coast as an additional information to the above publication.

Fish specimens were collected at monthly interval from three locations mentioned supra above spreading over a period of one year from March 1988 to February 1989. Each specimen was examined thoroughly and identified following standard literature (Day, 1978; Misra, 1962; Weber and Beaufort, 1933; F.A.O. Fish Identification Manual, 1974; Munro, 1982). The systematics arrangement was made as per the classification given by Berg (1940). The English name and local name in Oriya was quoted following the Indian Standard Glossary (1974).

The fish fauna was represented by 118 species, 7 belonging to class Chondrichthyes and 111 to class Osteichthyes (Table I). The former class comprised one order, two families and three genera. The later class was represented by 13 orders, 53 families and 78 genera. Percoidei is the richest order comprising 18 families, 28 genera and 45 species. 93 species have been identified as marine forms while 25 species were estuarine in their occurrence.

**Table I.** A Check list of the Marine and Estuarine Fishes of South Orissa

|                            | English name | Local name |
|----------------------------|--------------|------------|
| Grade : PISCES             |              |            |
| Class : CHONDRICHTHYES     |              |            |
| Sub-class : ELASMOBRANCHII |              |            |

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|  | English name                               | Local name      |
|--|--|-----------------|
| I Order : LAMNIFORMES                              |  |                 |
| Sub-order : SCYLIORHINOIDEI                        |  |                 |
| 1. Family : CARCHARHINIDAE                         |  |                 |
| <i>Carcharhinus dussumieri</i><br>(Muller & Henle) | Black Shark                                | Kola Magara     |
| <i>C. gangeticus</i> (Muller & Henle)              | Grey shark                                 | Munda Magara    |
| <i>C. limbatus</i> (Muller & Henle)                | Grey shark                                 | Kolapora Magara |
| <i>C. melanopterus</i> (Quoy & Gaimard)            | Black finned shark                         | Icha Magara     |
| <i>C. sorrah</i> (Muller & Henle)                  | Shark                                      | Khira Magara    |
| <i>Scoliodon laticaudus</i><br>(Muller & Henle)    | Yellow dog shark                           | Dog fish        |
| 2. Family : SPHYRNIDAE                             |  |                 |
| <i>Sphyrna blochii</i> (Cuvier)                    | Hammer headed shark                        | Jualia Magara   |
| Class : OSTEICHTHYES                               |  |                 |
| Sub-class : ACTINOPTERYGII                         |  |                 |
| II Order : CLUPEIFORMES                            |  |                 |
| Sub-order : CLUPEOIDEI                             |  |                 |
| 3. Family : CLUPEIDAE                              |  |                 |
| (a) Sub-family : DUSSUMIERIINAE                    |  |                 |
| <i>Dussumieria acuta</i> (Valenciennes)            | Rainbow sardine or<br>Common sprat         | Kunur danta     |
| (b) Sub-family : CLUPEINAE                         |  |                 |
| <i>Sardinella albella</i> (Valenciennes)           | Short-bodied sardine                       | Paunia puiee    |
| <i>S. fimbriata</i> (Valenciennes)                 | Lesser sardine or<br>Fringe-scale sardine. | Kabala          |
| <i>S. gibbosa</i> (Bleeker)                        | Indian sprat                               | Kabala          |
| <i>S. longiceps</i> (Valenciennes)                 | Oil sardine                                | Disco Kabala    |
| (c) Sub-family : ALOSINAE                          |  |                 |
| <i>Hilsa ilisha</i> (Hamilton)                     | Indian shad or<br>River shad               | Ilisa           |
| <i>H. Kelee</i> (Cuvier)                           |  |                 |
| (d) Sub-family : DOROSOMATINAE                     |  |                 |
| <i>Nematalosa nasus</i> (Bloch)                    | Long-Ray Bony Break                        | Bolangi         |

|   | English name                      | Local name  |
|---|-----------------------------------|-------------|
| 4. Family : ENGRAULIDAE                             |                                   |             |
| (a) Sub-family : COLLINAE                           |                                   |             |
| <i>Coilia dussumieri</i> (Valenciennes)             | Gold spotted<br>grenadier anchovy | Koorvai     |
| (b) Sub-family : ENGRAULINAE                        |                                   |             |
| <i>Stolephorus commersonii</i> (Lacepede)           | Commerson's<br>Anchovy            | Kokali      |
| <i>S. indicus</i> (Van Hasselt)                     | Indian Anchovy                    | Kokali      |
| <i>Thryssa dussumieri</i> (Valenciennes)            | Dussumier's Anchovy               | Kokali      |
| 5. Family : CHIROCENTRIDAE                          |                                   |             |
| <i>Chirocentrus dorab</i> (Forsskal)                | Wolf Herring<br>Silver bar        | Khandabalia |
| III Order : ELOPIFORMES                             |                                   |             |
| Sub-order : ELOPOIDEI                               |                                   |             |
| 6. Family : ELOPIDAE                                |                                   |             |
| <i>Elops machnata</i> (Forsskal)                    | Giant Herring                     |             |
| IV Order : ANGUILLIFORMES                           |                                   |             |
| Sub-order : ANGUILLOIDEI                            |                                   |             |
| 7. Family : MURAENIDAE                              |                                   |             |
| <i>Gymnothorax punctatus</i><br>(Bloch & Schneider) | White spotted moray               |             |
| 8. Family : CONGRIDAE                               |                                   |             |
| <i>Uroconger lepturus</i> (Richardson)              | Slender Conger Eel                |             |
| 9. Family : OPHICHTHIDAE                            |                                   |             |
| <i>Ophichthus apicalis</i> (Bennett)                | Pointed Tail Snake Eel            |             |
| V Order : GONORYNCHIFORMES                          |                                   |             |
| Sub-order : CHANOIDEI                               |                                   |             |
| 10. Family : CHANIDAE                               |                                   |             |
| <i>Chanos chanos</i> (Forsskal)                     | Milkfish or Salmon<br>Herring     | Sebakhainga |
| VI Order : SILURIFORMES                             |                                   |             |
| 11. Family : BAGRIDAE                               |                                   |             |
| <i>Mystus gulio</i> (Hamilton)                      | Long-Whiskers<br>Cat-fish         |             |

|   | English name           | Local name |
|---|------------------------|------------|
| 12. Family : ARIIDAE                              |                        |            |
| <i>Tachysurus caelatus</i><br>(Valenciennes)      | Engraved Cat-fish      | Kantia     |
| <i>T. sona</i> (Hamilton)                         | Marine Cat-fish        | Kantia     |
| 13. Family : PLOTOSIDAE                           |                        |            |
| <i>Plotssus lineatus</i> (Thunberg)               | Striped Cat-fish Eel   |            |
| VII Order : MYCTOPHIFORMES                        |                        |            |
| 14. Family : SYNODONTIDAE                         |                        |            |
| <i>Saurida gracilis</i> (Quoy & Gaimard)          | Slender-Lizard fish    |            |
| <i>S. tumbil</i> (Bloch)                          | Greater Lizard fish    | Budimottah |
| 15. Family : HARPADONTIDAE                        |                        |            |
| <i>Harpadon nehereus</i> (Hamilton)               | Bombay duck            | Newa       |
| VIII Order : LOPHIIFORMES                         |                        |            |
| 16. Family : ANTENNARIIDAE                        |                        |            |
| <i>Antennarius hispidus</i> (Bloch)               | Shaggy Fishing-Forg    |            |
| 17. Family : OGCOEPHALIDAE                        |                        |            |
| <i>Halieutaea indica</i><br>(Annandale & Jenkins) |                        |            |
| <i>H. stellata</i> (Vahl)                         | Stellate Hand Fish     |            |
| IX Order : ATHERINIFORMES                         |                        |            |
| Sub-order : EXOCOETOIDEI                          |                        |            |
| 18. Family : EXOCOETIDAE                          |                        |            |
| (a) Sub-family : EXOCOETINAE                      |                        |            |
| <i>Exocoetus volitans</i> (Linnaeus)              | Two-winged Flying Fish |            |
| (b) Sub-family : HEMIRAMPHINAE                    |                        |            |
| <i>Hyporhamphus limbatus</i> (Valenciennes)       | Gaimard's Half Beak    | Gangaturl  |
| <i>Rhynchorhamphus georgii</i> (Valenciennes)     | Long billed Half Beak  |            |
| <i>Zenarchopterus dispar</i> (Valenciennes)       | Viviparous Half Beak   | Gamardi    |
| X Order : SYNGNATHIFORMES                         |                        |            |
| Sub-order : AULOSTOMOIDEI                         |                        |            |
| Super family : AULOSTOMOIDAE                      |                        |            |

|   | English name                                  | Local name   |
|---|---|--------------|
| 19. Family : FISTULARIIDAE                |   |              |
| <i>Fistularia petimba</i> (Lacepede)      | Smooth Flute-Mouth                            |              |
| XI Order : SCORPAENIFORMES                |   |              |
| Sub-order : SCORPAENOIDEI                 |   |              |
| 20. Family : SCORPAENIDAE                 |   |              |
| <i>Pterois russelli</i> (Bennett)         | Russell's Fire Fish                           | Kukuda Ganga |
| 21. Family : SYNANCEIIDAE                 |   |              |
| <i>Minous trachycephalus</i> (Bleeker)    |   |              |
| Sub-order : PLATYCEPHALOIDEI              |   |              |
| 22. Family : PLATYCEPHALIDAE              |   |              |
| <i>Platycephalus indicus</i> (Linnaeus)   | Indian Flat-Head                              | Tokoro       |
| XII Order : PERCIFORMES                   |   |              |
| Sub-order : PERCOIDEI                     |   |              |
| 23. Family : CENTROPOMIDAE                |   |              |
| <i>Ambassis dussumieri</i> (Cuvier)       |   |              |
| <i>A. commersoni</i> (Cuvier)             | Commerson's Glassy<br>Perchlet                |              |
| <i>Lates calcarifer</i> (Bloch)           | Giant Perch or cock-up                        | Bhetki       |
| 24. Family : SERRANIDAE                   |   |              |
| (a) Sub-family : EPINEPHELINAE            |   |              |
| <i>Epinephelus morrhua</i> (Valenciennes) | Banded-Cheek<br>Reef-cod                      | Bhola        |
| 25. Family : TERAPONIDAE                  |   |              |
| <i>Terapon jarbua</i> (Forsskal)          | Crescent Perch or<br>Zoned Perch              | Gahana       |
| <i>T. puta</i> (Cuvier)                   | Small-scaled banded<br>Grunter or Zoned Perch | Tadikiri     |
| <i>T. theraps</i> (Cuvier)                | Large-scaled banded<br>Grunter                |              |
| 26. Family : APOGONIDAE                   |   |              |
| <i>Apogon auritus</i> (Lacopede)          | Golden Cardinal Fish                          | Ghandee      |
| <i>A. quadrifasciatus</i> (Cuvier)        | Four-band Cardinal<br>Fish                    | Ghandee      |

|   | English name                           | Local name |
|---|--|------------|
| 27. Family : SILLAGINIDAE                   |  |            |
| <i>Sillago sihama</i> (Forsskal)            | Silver whiting                         | Lerdi      |
| 28. Family : LACTARIIDAE                    |  |            |
| <i>Lactarius lactarius</i> (Schneider)      | Big jaw jumper                         | Suduma     |
| 29. Family : CARANGIDAE                     |  |            |
| <i>Carangoides malabaricus</i> (Bloch)      | Malabar Trevally                       |            |
| <i>Caranx carangus</i> (Bloch)              | Black-tailed Trevally                  | Kanti      |
| <i>Megalaspis cordyla</i> (Linnaeus)        | Horse mackerel                         |            |
| <i>Scomberoides tala</i> (Cuvier)           | Deep queenfish                         |            |
| 30. Family : CORYPHAENIDAE                  |  |            |
| <i>Coryphaena hippurus</i> (Linnaeus)       | Dolphin fish                           |            |
| 31. Family : LEIOGNATHIDAE                  |  |            |
| <i>Gazza achlamys</i> (Jordan & Starks)     | Naked toothed<br>Pony fish             |            |
| <i>G. minuta</i> (Bloch)                    | Toothed Pony Fish<br>or Silver bellies | Polanga    |
| <i>Leiognathus bindus</i> (Valenciennes)    | Orange-finned<br>Pony fish             |            |
| <i>L. daura</i> (Cuvier)                    | Golden striped<br>pong fish            |            |
| <i>L. fasciatus</i> (Lacepede)              | Banded Pony fish                       |            |
| <i>L. splendens</i> (Cuvier)                | Splendid Pony fish                     |            |
| <i>Secutor ruconius</i> (Hamilton)          | Dee-Bodied Pony fish                   |            |
| 32. Family : LUTJANIDAE                     |  |            |
| <i>Lutjanus argentimaculatus</i> (Forsskal) | Red Snapper                            |            |
| <i>L. johni</i> (Bloch)                     | Moser perch                            | Kokarba    |
| <i>L. lutjanus</i> (Bloch)                  | Rosy snapper                           | Scosta     |
| <i>L. sanguineus</i> (Cuvier)               | Blood-red snapper                      | Scosta     |
| 33. Family : NEMIPTERIDAE                   |  |            |
| <i>Nemipterus japonicus</i> (Bloch)         | White-tailed<br>Pink Perch             |            |
| 34. Family : GERREIDAE                      |  |            |
| <i>Gerres filamentosus</i> (Cuvier)         | Long-Rayed<br>Silver-biddy             | Jageri     |

|  | English name                         | Local name |
|--|--------------------------------------|------------|
| <i>G. oyena</i> (Forsskal)             | Lined Silver-biddy                   | Jagiri     |
| <i>Gerremorpha setifer</i> (Hamilton)  | Black-tipped<br>Silver-biddy         |            |
| <i>Pentaprion longimanus</i> (Cantor)  | Long-finned<br>Silver-biddy          |            |
| 35. Family : POMADASYIDAE              |                                      |            |
| <i>Pomadasys hasta</i> (Bloch)         | Lined Silver Grunter                 | Gorsa      |
| <i>P. maculatus</i> (Bloch)            | Spotted Grunter                      |            |
| 36. Family : LETHRINIDAE               |                                      |            |
| <i>Lethrinus nebulosus</i> (Forsskal)  | Banded Sea bream                     | Karva      |
| 37. Family : SCIAENIDAE                |                                      |            |
| <i>Dendrophysa russelli</i> (Cuvier)   | Russell's jewfish                    |            |
| <i>Johnius aneus</i> (Bloch)           | Grey-Fin jewfish                     |            |
| <i>Otolithes cuvieri</i> (Trewaves)    |                                      |            |
| <i>O. ruber</i> (Schneider)            | Rosy jew fish                        |            |
| 38. Family : MULLIDAE                  |                                      |            |
| <i>Parupeneus macronema</i> (Lacepeda) | Long-rayed Goat fish                 |            |
| <i>P. fraterculus</i> (Valenciennes)   | Two-spot Goat fish                   |            |
| <i>P. indicus</i> (Shaw)               | Indian Goat fish                     | Guli binda |
| <i>Upeneus tragula</i> (Richardson)    | Black-striped Goat fish              |            |
| 39. Family : SCATOPHAGIDAE             |                                      |            |
| <i>Scatophagus argus</i> (Linnaeus)    | Spotted butter-fish                  |            |
| 40. Family : CICHLIDAE                 |                                      |            |
| <i>Etroplus suratensis</i> (Bloch)     | Banded Etroplus                      |            |
| Sub-order : MUGILOIDEI                 |                                      |            |
| 41. Family : MUGILIDAE                 |                                      |            |
| <i>Liza macrolepis</i> (Smith)         | Borneo Mullet                        |            |
| <i>L. parsia</i> (Hamilton)            | Gold-spot Mullet                     |            |
| <i>L. tade</i> (Forsskal)              | Green-back Mullet                    | Maji       |
| <i>Mugil cephalus</i> (Linnaeus)       | Grey mullet                          | Khainga    |
| Sub-order : SPHYRAENOIDEI              |                                      |            |
| 42. Family : SPHYRAENIDAE              |                                      |            |
| <i>Sphyraena obtusata</i> (Cuvier)     | Blunt Jawed sea-pike<br>or Barracuda |            |

|   | English name                                | Local name |
|---|---|------------|
| Sub-order : POLYNEMOIDEI                                  |   |            |
| 43. Family : POLYNEMIDAE                                  |   |            |
| <i>Eleuthronema tetradactylum</i><br>(Shaw)               | Indian Salman or<br>Four-thread tassel fish | Sahalo     |
| <i>Polydactylus indicus</i> (Shaw)                        | Thread fin or Indian<br>tassel fish         |            |
| <i>P. sextaris</i> (Bloch)                                | Black-spot six-thread<br>tassel fish        |            |
| <i>Polynemus paradiseus</i> (Linnaeus)                    | Mango fish                                  | Topsi      |
| Sub-order : GOBIOIDEI                                     |   |            |
| 44. Family : ELEOTRIDAE                                   |   |            |
| <i>Eleotris fusca</i> (Bloch & Schneider)                 | Brown gudgeon                               | Bundi      |
| 45. Family : GOBIIDAE                                     |   |            |
| (a) Sub-family : GOBIINAE                                 |   |            |
| <i>Acentrogobius griseus</i> (Day)                        | Grey Goby                                   |            |
| <i>Glossogobius giuris</i> (Hamilton)                     | Bar-eyed Goby                               |            |
| (b) Sub-family : APOCRYPTEINAE                            |   |            |
| <i>Pseudapocryptes lanceolatus</i><br>(Bloch & Schneider) | Pointed-tailed Goby                         |            |
| Sub-order : KURTOIDEI                                     |   |            |
| 46. Family : KURTIDAE                                     |   |            |
| <i>Kurtus indicus</i> (Bloch)                             | Indian hump-head                            |            |
| Sub-order : ACANTHUROIDEI                                 |   |            |
| 47. Family : ACANTHURIDAE                                 |   |            |
| Sub-family : ACANTHURINAE                                 |   |            |
| <i>Acanthurus lineatus</i> (Linnaeus)                     | Blue-lined Surgeon-fish                     |            |
| Sub-order : SCOMBRIODEI                                   |   |            |
| 48. Family : TRICHIURIDAE                                 |   |            |
| <i>Eupleurogrammus muticus</i> (Gray)                     | Ribbon-fish                                 |            |
| <i>Trichiurus lepturus</i> (Linnaeus)                     | Ribbon-fish                                 |            |



|  | English name                                     | Local name    |
|--|--|---------------|
| 49. Family : SCOMBRIDAE                            |  |               |
| <i>Rastrelliger brachysoma</i> (Bleeker)           | Striped mackerel                                 |               |
| <i>R. kanagurta</i> (Cuvier)                       | Indian mackerel or<br>Rake-Gilled-Mackerel       | Kanagurda     |
| <i>Thunnus orientalis</i> (Temminck &<br>Schlegel) |  |               |
| Sub-order : STROMATEOIDEI                          |  |               |
| 50. Family : STROMATEIDAE                          |  |               |
| <i>Pampus argenteus</i> (Euphrasen)                | Silver pomfret                                   | Dhola Chandee |
| <i>P. chinensis</i> (Euphrasen)                    | White pomfret or<br>Chinese pomfret              | Dhola Chandee |
| 51. Family : APOLECTIDAE                           |  |               |
| <i>Apolectus niger</i> (Bloch)                     | Brown pomfret                                    |               |
| XIII Order : PLEURONECTIFORMES                     |  |               |
| Sub-order : PLEURONECTOIDEI                        |  |               |
| 52. Family : BOTHIDAE                              |  |               |
| <i>Pseudorhombus arsius</i> (Hamilton)             | Large-toothed<br>Flounder or Indian<br>flat-head | Pot potia     |
| <i>P. javanicus</i> (Bleeker)                      | Javanese Flounder                                | Pot potia     |
| <i>P. trilocellatus</i> (Bloch)                    | Three-spot Flounder<br>or Flat fish              |               |
| Sub-order : SOLEOIDEI                              |  |               |
| 53. Family : SOLEIDAE                              |  |               |
| <i>Zebrias zebra</i> (Bloch)                       | Zebra sale                                       |               |
| 54. Family : GYNOGLOSSIDAE                         |  |               |
| <i>Cynoglossus macrolepidotus</i><br>(Bleeker)     | Large-scaled<br>Tongue-sole                      |               |
| <i>C. macrostomus</i> (Norman)                     |  |               |
| XIV Order : TETRAODONTIFORMES                      |  |               |
| Sub-order : TETRAODONTOIDEI                        |  |               |
| 55. Family : TETRAODONTIDAE                        |  |               |
| <i>Canthigaster margaritatus</i> (Ruppell)         | Ocellated Toby                                   |               |

## SUMMARY

This check list of marine and estuarine fishes of South Orissa was prepared based on the collections made over a period of one year from March 1988 to February 1989 from three important fish landing centres namely Ganjam, Gopalpur and Patisonapur of Ganjam district. In total 7 species from the class Chondrichthyes and 111 species from class Osteichthyes were encountered. The common English name, as well as the local name in Oriya for each species was given.

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