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CHECKLIST OF FRESHWATER FISHES OF PAKISTAN

M. RAMZAN MIRZA



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Abstract.- There are 183 species of freshwater fishes belonging to 83 genera, 26 families and 11 orders known from Pakistan and Azad Kashmir.

Key words: Checklist, freshwater fishes, Pakistan.

INTRODUCTION

There are 183 species of freshwater fishes belonging to 83 genera, 26 families and 11 orders recorded from Pakistan and Kashmir. This record is based on the researches done during the last two

centuries. The first monograph on the fish fauna of Kashmir was by Heckel (1838). This was followed by the works of McClland (1842), Steindachner (1866), Day (1871, 1872, 1875-1878, 1880, 1889) and Alcock (1898) during the nineteenth century. During the 20th century, several papers and books were published on the freshwater fishes of the areas

now included in Pakistan. The important works are: Ahmad (1963); Qureshi (1965); Mirza (1970, 1975, 1980, 1990); Sheri and Saeed (1975); Jayaram (1981, 1999); Mirza and Alam (1994); Eschmayer *et al.* (1998); Kullander *et al.* (1998); Mirza and Bhatti (1999); Rafique (2001); Kullander (2001). Mirza (1978) and Bilqees *et al.* (1995) discussed in detail work done on the fishes of Pakistan. There are, however, some species of freshwater fishes described from Pakistan recently that have not been included in the above mentioned publications. These are included in the present checklist.

RIVER SYSTEM

Pakistan and Kashmir are drained mainly by the river Indus and its tributaries. The Indus originates in the Western Tibet from the northern flanks of the Kailas Range. It has no connection with the Manasarowar Lakes, which are situated south of the Kailas Range. It flows in the north-west between the Karakoram and the Himalayas. After receiving many tributaries from the right and left, it takes an acute turn in the south-east of Gilgit towards the south. In the north-west of the Nanga Parbat, it again bends towards the west and then again towards the south in the North West Frontier Province (NWFP). In this province, it falls into the Tarbela lake. It has covered a long distance, about 1600 km in the northern mountains. From Tarbela, it flows in the south-west for about 50 km up to Attock Khurd where it receives the river Kabul from the west. It flows through the Potohar Plateau and the Salt Range and then enters the Indus Plain in the south of Kalabagh.

In the Indus Plain, the flow of this river is slower. It receives several rivers from the west: the Kurram, the Gomai, the Nari, the Bolan, the Kolachi, etc. Near Mithankot, it receives the combined waters of the rivers Jhelum, Chenab, Ravi, Beas and Sutlej in the form of the river Punjnad. After passing through the Sindh Province it falls into the Arabian Sea near Karachi. Its length according to the latest surveys is more than 3860 km.

There are several streams in the northern Balochistan which neither join any big river nor fall directly into the sea. Instead, they end in the salt

lakes or hamuns such as the Hamun-i-Lora and the Hamun-i-Mashkhel. These so-called rivers are the Lora-Pishin and the Mashkhel, etc.

The rivers and streams in the Balochistan Coastal areas fall directly into the Arabian Sea. Among these, the rivers Hab, Porali, Hingol and Dasht are more important.

CHECKLIST*

Class ACTINOPTERYGII
Subclass TELEOSTEI
Cohort ARCHAEOPHYLACES
Superorder OSTEGLLOSSOMORPHA
Order OSTEGLLOSSIFORMES
Family NOTOPTERIDAE

Genus *Chitala* Fowler

1. *Chitala chitala* (Hamilton)
Mystus chitala Hamilton, 1822.
Chitala chitala: Jayaram, 1999.

Distribution in Pakistan

This species is restricted to the Indus Plain.

Distribution outside Pakistan

India: Brahmaputra, Ganges and Mahanadi drainage systems, Bangladesh, Myanmar.

Genus *Notopterus* Lacepede

2. *Notopterus notopterus* Pallas
Gymnotus notopterus Pallas, 1769.
Notopterus notopterus: Day, 1889.

Distribution in Pakistan

NWFP, Punjab, Sindh, Balochistan, Azad Kashmir.

Distribution outside Pakistan

India, Nepal, Bangladesh, Myanmar, Malaysia, Indonesia, Thailand.

* Classification followed in this checklist is mainly after Norman and Greenwood (1975) with some modifications made subsequently.

Cohort CLUPEOCEPHALA
Superorder CLUPEOMORPHA
Order CLUPEIFORMES
Family CLUPEIDAE

Genus *Gudusia* Fowler

3. *Gudusia chapra* (Hamilton)
Clupanodon chapra Hamilton, 1822.
Gudusia chapra: Regan, 1917.

Distribution in Pakistan
NWFP, Punjab, Sindh, Balochistan.

Distribution outside Pakistan
India, Nepal, Bangladesh, Myanmar.

Genus *Tenualosa* Fowler

4. *Tenualosa ilisha* (Hamilton)
Clupanodon ilisha Hamilton, 1822.
Clupea ilisha: Day, 1889.
Hilsa ilisha: Misra, 1962.

Distribution in Pakistan
Sindh, Balochistan.

Distribution outside Pakistan
Iraq, Iran, India, Bangladesh, Myanmar, Sri Lanka.

Genus *Gonialosa* Regan

5. *Gonialosa manmina* (Hamilton)
Clupanodon manmina Hamilton, 1822.
Gonialosa manmina: Misra, 1962.

Distribution in Pakistan
Sindh, Balochistan.

Distribution outside Pakistan
India, Bangladesh.

Cohort EUTELEOSTEI
Superorder PROTACANTHOPTERYGII
Order SALMONIFORMES
Family SALMONIDAE

Genus *Oncorhynchus* Suckley

6. *Oncorhynchus mykiss* (Walbaum)
Salmo mykiss Walbaum, 1792.
Salmo gairdnerii Richardson, 1836.
Oncorhynchus mykiss: Page and Burr, 1991.

Distribution in Pakistan

Northern Areas, NWFP (Exotic Rainbow trout).

Distribution outside Pakistan

Kashmir (introduced), India (introduced), British Columbia to California. Introduced in many countries.

Genus *Salmo* Linnaeus

7. *Salmo trutta fario* Linnaeus
Salmo fario Linnaeus, 1758.
Salmo trutta fario: Misra, 1962.

Distribution in Pakistan

Northern Areas, NWFP, Quetta (Exotic Brown trout).

Distribution outside Pakistan

Eurasia (introduced in many parts of the world).

Superorder OSTARIOPHYSI
Order CYPRINIFORMES
Family CYPRINIDAE*
Subfamily CULTRINAE

Genus *Chela* Hamilton

8. *Chela cachius* (Hamilton)
Cyprinus cachius Hamilton, 1822.
Cyprinus atpar Hamilton, 1822.
Perilampus atpar: Day, 1889.
Chela cachius: Sufi, 1958.
Chela atpar: Misra, 1962.

Distribution in Pakistan

NWFP, Punjab, Sindh, Balochistan, Azad Kashmir.

* The classification of the family Cyprinidae into subfamilies is after Banarescu (1968) and Mirza (2000).

Distribution outside Pakistan

India, Nepal, Bangladesh, Myanmar.

9. *Chela laubuca* (Hamilton)

Cyprinus laubuca Hamilton, 1822.

Perilampus laubuca: Day, 1889.

Chela laubuca: Sufi, 1958.

Distribution in Pakistan

NWFP, Punjab, Sindh.

Distribution outside Pakistan

India, Nepal, Bangladesh, Myanmar, Sri Lanka, Thailand, Malaysia, Indonesia.

Genus *Securicula* Günther10. *Securicula gora* (Hamilton)

Cyprinus gora Hamilton, 1822.

Chela gora: Day, 1889.

Oxygaster gora: Misra, 1962.

Pseudoxygaster gora: Banareescu, 1967.

Securicula gora: Mirza, 1990.

Distribution in Pakistan

NWFP, Punjab, Sindh.

Distribution outside Pakistan

India, Nepal, Bangladesh.

Genus *Salmophasia* Swainson11. *Salmophasia bacaila* (Hamilton)

Cyprinus bacaila Hamilton, 1822.

Chela bacaila: Day, 1889.

Oxygaster bacaila: Misra, 1962.

Salmostoma bacaila: Banareescu, 1968a.

Salmophasia bacaila: Mirza, 2000.

Distribution in Pakistan

NWFP, Punjab, Sindh, Balochistan, Azad Kashmir.

Distribution outside Pakistan

India, Nepal, Bangladesh.

12. *Salmophasia punjabensis* (Day)

Chela punjabensis Day, 1872.

Salmostoma punjabensis: Mirza, 1970.

Distribution in Pakistan

NWFP, Punjab, Sindh (Endemic to Pakistan).

Subfamily ASPIDOPARINAE

Genus *Aspidoparia* Heckel13. *Aspidoparia morar* (Hamilton)

Cyprinus morar Hamilton, 1822.

Aspidoparia morar: Day, 1889.

Distribution in Pakistan

NWFP, Punjab, Sindh, Balochistan, Azad Kashmir.

Distribution outside Pakistan

Afghanistan, Iran, India, Nepal, Bangladesh, Myanmar, Thailand.

Subfamily RASBORINAE

Genus *Amblypharyngodon* Bleeker14. *Amblypharyngodon mola* (Hamilton)

Cyprinus mola Hamilton, 1822.

Amblypharyngodon mola: Day, 1889.

Distribution in Pakistan

NWFP, Punjab, Sindh.

Distribution outside Pakistan

India, Nepal, Bangladesh, Myanmar.

Genus *Barilius* Hamilton15. *Barilius bendelisis* (Hamilton)

Cyprinus bendelisis Hamilton, 1822.

Barilius bendelisis: Day, 1889.

Distribution in Pakistan

NWFP, Punjab, Sindh.

Distribution outside Pakistan

India, Nepal, Bangladesh.

16. *Barilius modestus* Day

Barilius (Pachystoma) modestus Day, 1872.

Barilius modestus: Day, 1889.

Distribution in Pakistan
NWFP, Punjab, Sindh.

Distribution outside Pakistan
India.

17. *Barilius naseeri* Mirza, Rafiq and Awan
Barilius schacra naseeri Mirza, Rafiq and Awan, 1986.
Barilius naseeri: Mirza, 1990.

Distribution in Pakistan
Punjab (Endemic).

18. *Barilius pakistanicus* Mirza and Sadiq
Barilius vagra pakistanicus Mirza and Sadiq, 1978.
Barilius pakistanicus: Mirza, 1990.

Distribution in Pakistan
NWFP, Punjab, Balochistan, Azad Kashmir.

Distribution outside Pakistan
Not recorded.

19. *Barilius vagra* (Hamilton)
Cyprinus vagra Hamilton, 1822.
Barilius vagra: Day, 1889.

Distribution in Pakistan
NWFP, Punjab, Sindh, Balochistan, Azad Kashmir.

Distribution outside Pakistan
India, Nepal, Bangladesh.

Genus *Danio* Hamilton

20. *Danio rerio* (Hamilton)
Cyprinus rerio Hamilton, 1822.
Danio rerio: Day, 1889.
Brachydanio rerio: Mirza, 1990.

Distribution in Pakistan
NWFP, Punjab.

Distribution outside Pakistan
India, Nepal, Bangladesh, Myanmar.

Genus *Devario* Heckel

21. *Devario devario* (Hamilton)
Cyprinus devario Hamilton, 1822.
Danio devario: Day, 1889.
Devario devario: Kullander, 2001.

Distribution in Pakistan
NWFP, Punjab, Sindh, Balochistan.

Distribution outside Pakistan
India, Nepal, Bangladesh.

Genus *Esomus* Swainson

22. *Esomus danricus* (Hamilton)
Cyprinus danricus Hamilton, 1822.
Nuria danrica: Day, 1889.
Esomus danricus: Misra, 1962.

Distribution in Pakistan
NWFP, Punjab, Sindh, Azad Kashmir.

Distribution outside Pakistan
India, Nepal, Bangladesh.

Genus *Megarasbora* Günther

23. *Megarasbora elanga* (Hamilton)
Cyprinus elanga Hamilton, 1822.
Rasbora elanga: Day, 1889.
Megarasbora elanga: Kullander *et al.*, 1998.

Distribution in Pakistan
Sindh.

Distribution outside Pakistan
India, Nepal, Bangladesh, Myanmar.

Genus *Rasbora* Bleeker

24. *Rasbora daniconius* (Hamilton)
Cyprinus daniconius Hamilton, 1822.
Rasbora daniconius: Day, 1889.

Distribution in Pakistan
NWFP, Punjab, Sindh.

Distribution outside Pakistan

India, Nepal, Bangladesh, Sri Lanka, Myanmar, Malaysia.

25. *Rasbora rasbora* (Hamilton)

Cyprinus rasbora Hamilton, 1822.

Rasbora buchanani: Day, 1889.

Rasbora rasbora: Misra, 1962.

Distribution in Pakistan

Sindh.

Distribution outside Pakistan

India, Bangladesh, Myanmar, Malaysia, Thailand.

Subfamily BARBINAЕ

Genus *Cirrhinus* Cuvier

26. *Cirrhinus mrigala* (Hamilton)

Cyprinus mrigala Hamilton, 1822.

Cirrhina mrigala: Day, 1889.

Cirrhinus mrigala: Misra, 1962.

Distribution in Pakistan

NWFP (introduced), Punjab, Sindh, Balochistan.

Distribution outside Pakistan

India, Nepal, Bangladesh, Myanmar.

27. *Cirrhinus reba* (Hamilton)

Cyprinus reba Hamilton, 1822.

Cirrhina reba: Day, 1889.

Cirrhinus reba: Misra, 1962.

Distribution in Pakistan

NWFP, Punjab, Sindh, Azad Kashmir.

Distribution outside Pakistan

India, Nepal, Bangladesh.

Genus *Cyprinion* Heckel

28. *Cyprinion microphthalmum* (Day)

Scaphiodon microphthalmum Day, 1880.

Cyprinion microphthalmum: Mirza, 1969.

Distribution in Pakistan

Balochistan.

Distribution outside Pakistan

Iran, Arabia, Afghanistan.

29. *Cyprinion milesi* (Day)

Barbus milesi Day, 1880.

Cyprinion milesi: Mirza, 1969.

Distribution in Pakistan

Balochistan.

Distribution outside Pakistan

Iran.

30. *Cyprinion watsoni* (Day)

Scaphiodon watsoni Day, 1872.

Scaphiodon irregulare Day, 1872.

Scaphiodon readingi Hora, 1923b.

Cyprinion watsoni: Mirza, 1969.

Distribution in Pakistan

NWFP, Punjab, Sindh, Balochistan, Azad Kashmir.

Distribution outside Pakistan

Afghanistan, Iran.

Genus *Gibelion* Heckel

31. *Gibelion catla* (Hamilton)

Cyprinus catla Hamilton, 1822.

Catla buchanani Day, 1889.

Catla catla: Ahmad, 1943.

Gibelion catla: Rainboth, 1991.

Distribution in Pakistan

NWFP (introduced), Punjab, Sindh, Balochistan, Azad Kashmir (introduced).

Distribution outside Pakistan

India, Nepal, Bangladesh, Myanmar, Sri Lanka.

Genus *Labeo* Cuvier

32. *Labeo angra* (Hamilton)

Cyprinus angra Hamilton, 1822.
Labeo angra: Day, 1889.

Distribution in Pakistan
NWFP, Punjab.

Distribution outside Pakistan
Afghanistan, India, Nepal, Bangladesh,
Myanmar.

33. *Labeo bata* (Hamilton)
Cyprinus bata Hamilton, 1822.
Labeo bata: Day, 1899.

Distribution in Pakistan
Punjab, Sindh.

Distribution outside Pakistan
India, Nepal, Bangladesh, Myanmar.

34. *Labeo boga* (Hamilton)
Cyprinus boga Hamilton, 1822.
Labeo boga: Day, 1889.

Distribution in Pakistan
Punjab, Sindh.

Distribution outside Pakistan
India, Nepal, Bangladesh, Myanmar.

35. *Labeo boggut* (Sykes)
Chondrostoma boggut Sykes, 1838.
Labeo boggut: Day, 1889.

Distribution in Pakistan
Punjab, Sindh.

Distribution outside Pakistan
India, Bangladesh.

36. *Labeo caeruleus* Day
Labeo caeruleus Day, 1877.

Distribution in Pakistan
Punjab, Sindh, Balochistan. Endemic to
Pakistan.

37. *Labeo calbasu* (Hamilton)

Cyprinus calbasu Hamilton, 1822.
Labeo calbasu: Day, 1889.

Distribution in Pakistan
NWFP, Punjab, Sindh.

Distribution outside Pakistan
India, Nepal, Bangladesh, Myanmar, Thailand,
China.

38. *Labeo dero* (Hamilton)
Cyprinus dero Hamilton, 1822.
Labeo sindensis: Day, 1889.
Labeo dero: Misra, 1962.

Distribution in Pakistan
NWFP, Punjab, Sindh, Balochistan.

Distribution outside Pakistan
India, Nepal, Bangladesh, Myanmar, China.

39. *Labeo diplostomus* (Heckel)
Varicorhinus diplostomus Heckel, 1838.
Labeo microphthalmus Day, 1877.
Labeo diplostomus: Day, 1889.

Distribution in Pakistan
NWFP, Punjab, Sindh, Balochistan, Azad
Kashmir.

Distribution outside Pakistan
India.

40. *Labeo dyocheilus pakistanicus* Mirza and
Awan
Labeo dyocheilus pakistanicus Mirza and Awan,
1976.

Distribution in Pakistan
NWFP, Punjab, Sindh, Balochistan, Azad
Kashmir.

Distribution outside Pakistan
India (Punjab and Himachal Pradesh).

41. *Labeo fimbriatus* Bloch
Cyprinus fimbriatus Bloch, 1785.
Labeo fimbriatus: Day, 1889.

Distribution in Pakistan
Sindh.

Distribution outside Pakistan
India, Nepal, Bangladesh, Myanmar.

42. *Labeo gedrosicus* Zugmayer
Labeo gedrosicus Zugmayer, 1912.

Distribution in Pakistan
Balochistan (Endemic).

43. *Labeo gonius* (Hamilton)
Cyprinus gonius Hamilton, 1822.
Labeo gonius: Day, 1889.

Distribution in Pakistan
Punjab, Sindh.

Distribution outside Pakistan
India, Nepal, Bangladesh, Myanmar.

44. *Labeo nigripinnis* Day
Labeo nigripinnis Day, 1877.

Distribution in Pakistan
Sindh Hills and rivers at their bases (Endemic).

45. *Labeo pangusia* (Hamilton)
Cyprinus pangusia Hamilton, 1822.
Labeo pangusia: Day, 1889.

Distribution in Pakistan
Sindh.

Distribution outside Pakistan
India, Nepal, Bangladesh.

46. *Labeo rohita* (Hamilton)
Cyprinus rohita Hamilton, 1822.
Labeo rohita: Day, 1889.

Distribution in Pakistan
Punjab, Sindh, Balochistan, Azad Kashmir
(Introduced).

Distribution outside Pakistan
India, Nepal, Bangladesh, Myanmar.

Genus *Naziritor* Mirza and Javed

47. *Naziritor zhobensis* (Mirza)
Tor zhobensis Mirza, 1967.
Naziritor zhobensis: Mirza, 1990.

Distribution in Pakistan
NWFP: rivers Kabul, Kurram, Shahur, Gomal.
Balochistan: rivers Kundar and Zhob. Endemic to
Pakistan.

Genus *Osteobrama* Heckel

48. *Osteobrama cotio* (Hamilton)
Cyprinus cotio Hamilton, 1822.
Rohtee cotio: Day, 1889.

Distribution in Pakistan
NWFP, Punjab, Sindh.

Distribution outside Pakistan
India, Nepal, Bangladesh, Myanmar.

Genus *Puntius* Hamilton

49. *Puntius chola* (Hamilton)
Cyprinus chola Hamilton, 1822.
Barbus chola: Day, 1889.
Puntius chola: Mirza, 1990.

Distribution in Pakistan
NWFP, Punjab, Sindh.

Distribution outside Pakistan
India, Nepal, Bangladesh, Myanmar.

50. *Puntius conchoni* (Hamilton)
Cyprinus conchoni Hamilton, 1822.
Barbus conchoni: Day, 1889.
Puntius conchoni: Misra, 1962.

Distribution in Pakistan
NWFP, Punjab, Sindh, Balochistan, Azad
Kashmir.

Distribution outside Pakistan
India, Nepal, Bangladesh.

51. *Puntius gelius* (Hamilton)
Cyprinus gelius Hamilton, 1822.
Barbus gelius: Day, 1889.
Puntius gelius: Mirza, 1990.

Distribution in Pakistan
 Sindh.

Distribution outside Pakistan
 India, Nepal, Bangladesh.

52. *Puntius phutunio* (Hamilton)
Cyprinus phutunio Hamilton, 1822.
Barbus phutunio: Day, 1889.
Puntius phutunio: Mirza, 1990.

Distribution in Pakistan
 Sindh (Manchar Lake).

Distribution outside Pakistan
 India, Nepal, Bangladesh, Myanmar.

53. *Puntius punjabensis* (Day)
Barbus punjabensis Day, 1871.
Puntius punjabensis: Mirza, 1972.

Distribution in Pakistan
 NWFP, Punjab, Sindh, Balochistan (Endemic to Pakistan).

54. *Puntius sophore* (Hamilton)
Cyprinus sophore Hamilton, 1822.
Barbus stigma: Day, 1889.
Barbus chrysopterus: Day, 1889.
Puntius sophore: Misra, 1962.

Distribution in Pakistan
 NWFP, Punjab, Sindh, Balochistan, Azad Kashmir.

Distribution outside Pakistan
 India, Nepal, Bangladesh, Myanmar, China.

55. *Puntius terio* (Hamilton)
Cyprinus terio Hamilton, 1822.
Barbus terio: Day, 1889.
Puntius terio: Mirza, 1990.

Distribution in Pakistan
 Punjab, Sindh, Balochistan.

Distribution outside Pakistan
 India, Bangladesh, Myanmar.

56. *Puntius ticto* (Hamilton)
Cyprinus ticto Hamilton, 1822.
Barbus ticto: Day, 1889.
Puntius ticto: Misra, 1962.

Distribution in Pakistan
 NWFP, Punjab, Sindh, Balochistan, Azad Kashmir.

Distribution outside Pakistan
 India, Nepal, Bangladesh.

57. *Puntius vittatus* Day
Puntius vittatus Day, 1865.
Barbus vittatus: Day, 1889.

Distribution in Pakistan
 Sindh (Karachi).

Distribution outside Pakistan
 India, Sri Lanka.

58. *Puntius waagenii* (Day)
Barbus waagenii Day, 1872.
Puntius waagenii: Mirza, 1990.

Distribution in Pakistan
 Punjab (Choa Saiden Shah). Endemic.

Genus *Systemus* McClelland

59. *Systemus sarana* (Hamilton)
Cyprinus sarana Hamilton, 1822.
Barbus sarana: Day, 1889.
Puntius sarana: Misra, 1962.
Systemus sarana: Kullandar *et al.*, 1998.

Distribution in Pakistan
 NWFP, Punjab, Sindh, Balochistan, Azad Kashmir.

Distribution outside Pakistan
India, Nepal, Bangladesh.

Genus *Tariqilabeo* Mirza and Saboohi

60. *Tariqilabeo macmahoni* (Zugmayer)
Labeo macmahoni Zugmayer, 1912.

Distribution in Pakistan
Endemic to Dasht river in Balochistan. Status doubtful (Kullander *et al.*, 1998).

Genus *Tor* Gray

61. *Tor macrolepis* (Heckel)
Labeobarbus macrolepis Heckel, 1838.
Barbus tor (part): Day, 1889.
Tor putitora (nec Hamilton): Mirza, 1990.

Distribution in Pakistan
NWFP, Punjab, Sindh, Balochistan, Azad Kashmir.

Distribution outside Pakistan
India (Indus drainage system).

Subfamily GARRINAE
Genus *Crossocheilus* Kuhl and van Hasselt

62. *Crossocheilus diplocheilus* (Heckel)
Barbus diplocheilus Heckel, 1838.
Crossocheilus latus diplocheilus: Mirza and Kashmiri, 1973.
Crossocheilus diplocheilus: Mirza, 1990.

Distribution in Pakistan
NWFP, Punjab, Sindh, Balochistan, Azad Kashmir.

Distribution outside Pakistan
India (Indus drainage only), Iran, Afghanistan.

Genus *Garra* Gray

63. *Garra gotyla* (Gray)
Cyprinus gotyla Gray, 1832.
Discognathus lamta: Day (part), 1889.
Garra gotyla: Hora, 1921.

Distribution in Pakistan
NWFP, Punjab, Sindh, Balochistan, Azad Kashmir.

Distribution outside Pakistan
India, Nepal, Bangladesh, Myanmar.

64. *Garra rossica* (Nikolsky)
Discognathus rossica Nikolsky, 1900.
Discognathus phryne Annandale, 1919.
Garra rossica: Hora, 1921.
Discognathichthys rossicus: Mirza, 1972.

Distribution in Pakistan
Balochistan (northwestern areas drained by the Pishin, Lora and the river Mashkhel).

Distribution outside Pakistan
Afghanistan (Lora-Pishin and Helmand systems), Iran.

65. *Garra wanae* (Regan)
Discognathus wanae Regan, 1914.
Garra wanae: Mirza, 1990.

Distribution in Pakistan
Wana Toi – a tributary of Gomal river in NWFP (Endemic).

Subfamily SCHIZOTHORACINAE

Tribe SCHIZOTHORACINI

Genus *Racoma* McClelland and Griffith

66. *Racoma labiata* McClelland and Griffith
Racoma labiatus McClelland and Griffith in McClelland, 1842.
Schizothorax labiatus: Hora, 1934.
Racoma labiata: Mirza, 1990.

Distribution in Pakistan
Northern Areas, NWFP, northern Punjab, northeastern Balochistan, Azad Kashmir.

Distribution outside Pakistan
Afghanistan, Iran (Sistan), India (Indus system only), China (Tibet).

Genus *Schizopyge* Heckel

67. *Schizopyge curvifrons* (Heckel)
Schizothorax curvifrons Heckel, 1838.
Schizopyge curvifrons: Mirza and Afridi, 2002.

Distribution in Pakistan

Northern Areas, NWFP, Azad Kashmir.

Distribution outside Pakistan

India (Indus system only).

68. *Schizopyge dainellii* (Vinciguerra)
Schizothorax dainellii Vinciguerra, 1930.
Schizopyge dainellii: Mirza and Afridi, 2002.

Distribution in Pakistan

Northern Areas (Skardu only).

69. *Schizopyge esocinus* (Heckel)
Schizothorax esocinus Heckel, 1838.
Schizopyge esocinus: Mirza, 1990.

Distribution in Pakistan

Northern Areas, NWFP, northern Punjab (Indus river up to Dakhner a few miles downstream from Attock Khurd), Azad Kashmir.

Distribution outside Pakistan

Afghanistan, India (Indus system only).

70. *Schizopyge niger* (Heckel)
Schizothorax niger Heckel, 1838.
Schizopyge niger: Mirza and Afridi, 2002.

Distribution in Pakistan

Azad Kashmir.

Distribution outside Pakistan

Valley of Kashmir.

Genus *Schizothorax* Heckel

71. *Schizothorax plagiostomus* Heckel
Schizothorax plagiostomus Heckel, 1838.
Schizothorax sinuatus Heckel, 1838.
Oreinus plagiostomus: Day, 1889.
Oreinus sinuatus: Day, 1889.
Oreinus sinuatus griffithi: Mirza, 1962.

Distribution in Pakistan

Northern Areas, NWFP, northern Punjab (stray specimens collected from Head Sulaimanki), northeastern Balochistan, Azad Kashmir.

Distribution outside Pakistan

India (Indus system), Afghanistan, China (Tibet).

72. *Schizothorax skarduensis* Mirza and Awan
Schizothorax skarduensis Mirza and Awan, 1978.

Distribution in Pakistan

Northern Areas (Endemic).

Tribe SCHIZOCYPRINI
Genus *Schizocypris* Regan

73. *Schizocypris brucei* Regan
Schizocypris brucei Regan, 1914.

Distribution in Pakistan

NWFP (southwestern rivers: Kurram, Shahur, Gomal), northeastern Balochistan. Nearly endemic to Pakistan.

Tribe DIPTYCHINI

Genus *Diptychus* Steindachner

74. *Diptychus maculatus* Steindachner
Diptychus maculatus Steindachner, 1866.
Diptychus pakistanicus Mirza and Awan, 1979.

Distribution in Pakistan

Northern Areas.

Distribution outside Pakistan

India (upper parts of the Indus system), Nepal, China (Tibet).

Genus *Ptychobarbus* Steindachner

75. *Ptychobarbus conirostris* Steindachner
Ptychobarbus conirostris Steindachner, 1866.

Distribution in Pakistan

Northern Areas.

Distribution outside Pakistan

India (upper parts of Indus system), China (Tibet).

Tribe SCHIZOPYGOPSINI

Genus *Schizopygopsis* Steindachner

76. *Schizopygopsis stoliczkae* Steindachner
Schizopygopsis stoliczkae Steindachner, 1866.
Gymnocypris biswasi Talwar, 1978.

Distribution in Pakistan

Northern Areas (recorded from Baltistan only).

Distribution outside Pakistan

Ladakh, India (Indus river headwaters), China (Tibet).

Subfamily CYPRININAE

Genus *Carassius* Nilsson

77. *Carassius auratus* (Linnaeus)
Cyprinus auratus Linnaeus, 1758.
Carassius auratus: Day, 1889.

Distribution in Pakistan

NWFP, Punjab, Sindh, Balochistan, Azad Kashmir (Exotic fish imported for ornamental purposes but feral populations are found in the Indus river up to Tarbela and Khalabat pocket).

Distribution outside Pakistan

Cultured all over the world as aquarium pet.

Genus *Cyprinus* Linnaeus

78. *Cyprinus carpio* Linnaeus
Cyprinus carpio Linnaeus, 1758.

Distribution in Pakistan

NWFP, Punjab, Sindh, Balochistan, Azad Kashmir (Exotic species).

Distribution outside Pakistan

Used in aquaculture in most of the countries of the world.

Subfamily HYPOPHTHALMICHTHYINAE

Genus *Hypophthalmichthys* Bleeker

79. *Hypophthalmichthys molitrix* (Valenciennes)
Leuciscus molitrix Valenciennes, 1844.
Hypophthalmichthys molitrix: Bleeker, 1860.

Distribution in Pakistan

Used in aquaculture in suitable waters in NWFP, Punjab, Sindh, Balochistan, Azad Kashmir.

Distribution outside Pakistan

Used in aquaculture in most of the countries of the world.

80. *Hypophthalmichthys nobilis* (Richardson)
Leuciscus nobilis Richardson, 1844.
Hypophthalmichthys nobilis: Günther, 1868.
Aristichthys nobilis: Oshima, 1919.

Distribution in Pakistan

Used in aquaculture (Exotic species).

Distribution outside Pakistan

Chinese Major carp, cultured for pond culture.

Subfamily LEUCISCINAE

Genus *Ctenopharyngodon* Steindachner

81. *Ctenopharyngodon idellus* (Valenciennes)
Leuciscus idella Valenciennes, 1844.
Ctenopharyngodon idellus: Günther, 1868.

Distribution in Pakistan

Exotic Chinese carp, cultured in suitable waters in various parts of the country.

Distribution outside Pakistan

Cultured in various countries of the world for food and control of aquatic vegetations.

Family COBITIDAE

Subfamily BOTINAE

Genus *Botia* Gray

82. *Botia almorhae* Gray
Botia almorhae Gray, 1831.
Botia geto: Day (nec Hamilton) (part), 1889.

Distribution in Pakistan
Azad Kashmir.

Distribution outside Pakistan
India, Nepal.

83. *Botia birdi* Chaudhuri
Botia geto: Day (nec Hamilton), (part), 1889.
Botia bird: Chaudhuri, 1909.

Distribution in Pakistan
NWFP, Punjab, Sindh, Balochistan, Azad Kashmir.

Distribution outside Pakistan
India (Indus drainage).

84. *Botia javedi* Mirza and Syed
Botia rostrata Mirza (nec Gunther), 1980.
Botia javedi Mirza and Syed, 1995.

Distribution in Pakistan
NWFP (Kabul Drainage) (Endemic).

85. *Botia lohachata* Chaudhuri
Botia lohachata Chaudhuri, 1912.

Distribution in Pakistan
Punjab, Sindh.

Distribution outside Pakistan
India, Nepal, Bangladesh.

Subfamily COBITINAE

Genus *Lepidocephalus* Bleeker

86. *Lepidocephalus guntea* (Hamilton)
Cobitis guntea Hamilton, 1822.
Lepidocephalichthys guntea: Day, 1889.
Lepidocephalus guntea: Mirza, 1975.

Distribution in Pakistan
NWFP, Punjab, Sindh.

Distribution outside Pakistan
India, Nepal, Bangladesh.

Family NEMACHEILIDAE

The species of this family are often included in the family Balitoridae. As shown by Mirza (1989), Nemacheilidae is distinct from Balitoridae (= Homalopteridae). The Balitoridae is not represented in Pakistan and Kashmir.

Genus *Acanthocobitis* Peters

87. *Acanthocobitis botia* (Hamilton)
Cobitis botia Hamilton, 1822.
Nemacheilus botia: Day, 1889.
Acanthocobitis botia: Mirza, 1990.

Distribution in Pakistan

NWFP, Punjab, Sindh, Balochistan, Azad Kashmir.

Distribution outside Pakistan
India, Nepal, Bangladesh.

Genus *Nemacheilus* Bleeker

88. *Nemacheilus corica* (Hamilton)
Cobitis corica Hamilton, 1822.
Nemacheilus corica: Day, 1889.

Distribution in Pakistan

NWFP, Punjab, Sindh.

Distribution outside Pakistan
India, Nepal, Bangladesh.

Genus *Schistura* McClelland

The taxonomy of this genus is difficult. Menon (1987) synonymized some species which was questioned by Banarescu and Nalbant (1995).

89. *Schistura afasciata* Mirza and Banarescu
Schistura afasciata Mirza and Banarescu, in: Mirza, Banarescu and Nalbant, 1981.

Distribution in Pakistan

NWFP (Endemic: Daur river near Havelian).

90. *Schistura alepidota* (Mirza and Banareescu).
Noemacheilus rupecula alepidotus Mirza and Banareescu in: Mirza, Banareescu and Nalbant, 1970.
Schistura alepidota: Mirza, Nalbant and Banareescu, 1981.

Distribution in Pakistan

NWFP, Punjab, Azad Kashmir (Edemic).

91. *Schistura anambarensis* (Mirza and Banareescu)
Noemacheilus anambarensis Mirza and Banareescu, in Mirza *et al.*, 1970.
Schistura anambarensis: Mirza, Nalbant and Banareescu, 1981.

Distribution in Pakistan

Balochistan (rivers Anambar and Kolachi).
 Endemic.

92. *Schistura arifi* Mirza and Banareescu
Schistura arifi Mirza and Banareescu in Mirza *et al.*, 1981.

Distribution in Pakistan

River Zhob in Balochistan. Endemic.

93. *Schistura balochiorum* (Zugmayer)
Nemachilus balochiorum Zugmayer, 1912.
Schistura balochiorum: Mirza, Nalbant and Banareescu, 1981.

Distribution in Pakistan

Balochistan (Panjgur and Harnai).

Distribution outside Pakistan

Iran (Mashkhel drainage).

94. *Schistura curtistigma* Mirza and Nalbant
Schistura curtistigma Mirza and Nalbant in Mirza, Nalbant and Banareescu, 1981.

Distribution in Pakistan

NWFP (river Kurram), Endemic.

95. *Schistura fascimaculata* Mirza and Nalbant
Schistura fascimaculata Mirza and Nalbant, in Mirza, Nalbant and Banareescu, 1981.

Distribution in Pakistan

NWFP (Hangu on Kohat Toi drainage).
 Endemic.

96. *Schistura harnaiensis* (Mirza and Nalbant)
Noemacheilus harnaiensis Mirza and Nalabant in: Mirza, Banareescu and Nalbant, 1969.

Distribution in Pakistan

Balochistan (Harnai on Nari drainage).

97. *Schistura horai* (Menon)
Nemachilus horai Menon, 1951.
Schistura horai: Mirza, 1990.

Distribution in Pakistan

Punjab (Lahore).

Distribution outside Pakistan

India (Himachal Pradesh and Jammu areas).

98. *Schistura kessleri* Günther
Nemachilus kessleri Günther, 1889.
Schistura kessleri kessleri: Mirza, Nalbant and Banareescu, 1981.

Distribution in Pakistan

Balochistan: Quetta, Chaghai etc.

Distribution outside Pakistan

Iran, Afghanistan.

99. *Schistura lepidocaulis* Mirza and Nalbant
Schistura kessleri lepidocaulis Mirza and Nalbant: in Mirza, Nalbant and Banareescu, 1981.

Distribution in Pakistan

NWFP (Parachinar – Kurram river drainage),
 Punjab (Sun-Sakesar Valley), Endemic.

100. *Schistura kohatensis* Mirza and Banareescu
Schistura kohatensis Mirza and Banareescu, in: Mirza, Nalbant and Banareescu, 1981.

Distribution in Pakistan

NWFP (Kohat Toi drainage near Hangu),
 Endemic.

101. *Schistura lindbergi* (Banarescu and Mirza)
Noemacheilus lindbergi Banarescu and Mirza, 1965.
Schistura lindbergi: Mirza, Nalbant and Banarescu, 1981.

Distribution in Pakistan

NWFP (Unar river near Oghi), Balochistan (Loralai – Nari drainage system), Panjgur (Rakhshan river – Mashkhel drainage system).

Distribution outside Pakistan

Afghanistan, Iran.

102. *Schistura machensis* (Mirza and Nalbant)
Noemacheilus horai machensis Mirza and Nalbant, in: Mirza, Banarescu and Nalbant, 1970.
Schistura machensis: Mirza, Nalbant and Banarescu, 1981.

Distribution in Pakistan

Balochistan (Mach – Bolan river drainage system and Harnai).

103. *Schistura macrolepis* Mirza and Banarescu.
Schistura macrolepis Mirza and Banarescu, in: Mirza, Nalbant and Banarescu, 1981.

Distribution in Pakistan

Punjab (Fort Munro and Shadiwal), Endemic.

104. *Schistura microlabra* Mirza and Nalbant
Schistura microlabra Mirza and Nalbant, in: Mirza, Nalbant and Banarescu, 1981.

Distribution in Pakistan

NWFP (river Unar near Oghi and Ali Masjid in Khyber Pass – river Kabul drainage system), Endemic.

105. *Schistura nalbanti* (Banarescu and Mirza)
Noemacheilus alepidota nalbanti Banarescu and Mirza, 1972.
Schistura nalbanti: Mirza, Nalbant and Banarescu, 1981.

Menon (1987) has merged this species with *Schistura punjabensis* (Hora). But the pectoral fins are longer than head length in *S. punjabensis* while the reverse is true for *S. nalbanti*. However, the two species are very closely related.

Distribution in Pakistan

NWFP (Kunhar river), Punjab (Punjar, Jhelum drainage system), Azad Kashmir.

Distribution outside Pakistan

Jammu Tawi, Kashmir Valley.

106. *Schistura naseeri* (Ahmad and Mirza)
Noemacheilus punjabensis naseeri Ahmad and Mirza, 1963.
Schistura naseeri: Mirza, Nalbant and Banarescu, 1981.

Distribution in Pakistan

NWFP (Swat Valley, Allai Khwar, Abbottabad), Endemic.

107. *Schistura pakistanica* (Mirza and Banarescu)
Noemacheilus pakistanicus Mirza and Banarescu, in: Mirza, Banarescu and Nalabant, 1969.
Schistura pakistanica: Mirza, Nalbant and Banarescu, 1981.

Distribution in Pakistan

Balochistan (rivers Zhob, Kundar, Gomal), Endemic.

108. *Schistura prashari* (Hora)
Nemachilus prashari Hora, 1933.
Schistura prashari: Mirza, Nalbant and Banarescu, 1981.

Distribution in Pakistan

NWFP, Punjab, Endemic.

109. *Schistura punjabensis* (Hora)
Nemachilus punjabensis Hora, 1923.
Schistura punjabensis: Mirza, Nalbant and Banarescu, 1981.

Distribution in Pakistan

Punjab (Salt Range).

Distribution outside Pakistan

Punjab (India).

110. *Schistura shadiwalensis* Mirza and Nalbant
Schistura shadiwalensis Mirza and Nalbant, in: Mirza, Nalbant and Banarescu, 1981.

Distribution in Pakistan

Punjab (Shadiwal), Endemic.

111. *Schistura zonata* McClelland
Schistura zonata McClelland, 1839.
Nemacheilus zonatus: Day, 1889.

Distribution in Pakistan

Punjab (Gujar Khan).

Distribution outside Pakistan

India.

Genus *Triplophysa* Rendahl

112. *Triplophysa brahui* (Zugmayer)
Nemachilus brahui Zugmayer, 1912.
Triplophysa brahui: Mirza, 1990.

Distribution in Pakistan

Balochistan (Lora Pishin drainage).

Distribution outside Pakistan

Afghanistan (Lora-Pishin drainage).

113. *Triplophysa choprai* (Hora)
Nemachilus choprai Hora, 1934.
Triplophysa choprai: Mirza, 1990.

Distribution in Pakistan

NWFP (Chitral and Swat Valleys), endemic.

114. *Triplophysa hazaraensis* Omer and Mirza
Noemacheilus griffithi hazaraensis Omer and Mirza, 1975.
Triplophysa hazaraensis: Mirza, 1990.

Distribution in Pakistan

NWFP (Abbottabad), endemic.

115. *Triplophysa kashmirensis* (Hora)
Nemachilus kashmirensis Hora, 1922.
Triplophysa kashmirensis: Mirza, 1990.

Distribution in Pakistan

NWFP (Balakot), Azad Kashmir.

Distribution outside Pakistan

River Jammu Tawi (Chineni), Vale of

Kashmir.

116. *Triplophysa marmorata* (Heckel)
Cobitis marmorata Heckel, 1838.
Cobitis vittatus Heckel, 1838.
Nemacheilus marmoratus: Day, 1889.
Triplophysa marmorata: Rafique, 2001.

Distribution in Pakistan

Azad Kashmir.

Distribution outside Pakistan

Vale of Kashmir, Jammu Tawi (Chineni).

117. *Triplophysa microps* (Steindachner)

Cobitis microps Steindachner, 1866.
Nemachilus microps: Günther, 1868.
Nemacheilus gracilis Day, 1876.
Triplophysa microps: Mirza, 1990.
Triplophysa trewavasae: Mirza and Ahmad, 1990.

Distribution in Pakistan

Northern Areas, NWFP, Azad Kashmir.

Distribution outside Pakistan

Ladakh, Vale of Kashmir, India (Himachal Pradesh).

118. *Triplophysa naziri* (Ahmad and Mirza)
Noemacheilus naziri Ahmad and Mirza, 1963.
Noemacheilus griffithi naziri: Mirza, 1973.
Triplophysa naziri: Mirza, 1990.

Distribution in Pakistan

NWFP (Swat river system and Vale of Peshawar, Endemic).

119. *Triplophysa stoliczkae* (Steindachner)

Cobitis stoliczkae Steindachner, 1866.
Nemacheilus stoliczkae: Day, 1889.
Triplophysa stoliczkae: Mirza, 1990.

Distribution in Pakistan

Northern Areas.

Distribution outside Pakistan

Ladakh, India (Himachal Pradesh), China (Tibet).

120. *Triplophysa tenuicauda* (Steindachner)*Cobitis tenuicauda* Steindachner, 1866.*Nemachilus tenuicauda*: Gunther, 1868.*Triplophysa tenuicauda*: Mirza, 1990.*Distribution in Pakistan*

Northern Areas.

Distribution outside Pakistan

Ladakh, China (Tibet).

121. *Triplophysa yasinensis* (Alcock)*Nemachilus yasinensis* Alcock, 1898.*Triplophysa yasinensis*: Mirza, 1990.*Distribution in Pakistan*

Northern Areas.

Distribution outside Pakistan

Ladakh.

Order SILURIFORMES

Family BAGRIDAE

Subfamily RITINAE

Genus *Rita* Bleeker122. *Rita rita* (Hamilton)*Pimelodus rita* Hamilton, 1822.*Rita buchmanani*: Day, 1889.*Rita rita*: Mirza, 1990.*Distribution in Pakistan*

NWFP, Punjab, Sindh, Balochistan.

Distribution outside Pakistan

Afghanistan (Kabul river), India, Nepal, Bangladesh, Myanmar.

Subfamily BAGRINAE

Genus *Batasio* Blyth123. *Batasio pakistanicus* Mirza and Jan
Batasio pakistanicus Mirza and Jan, 1989.*Distribution in Pakistan*

Punjab (Jinnah Barrage), Endemic.

Genus *Mystus* Scopoli124. *Mystus bleekeri* (Day)*Macrones bleekeri* Day, 1877.*Mystus bleekeri*: Mirza, 1990.*Distribution in Pakistan*

NWFP, Punjab, Sindh.

Distribution outside Pakistan

India, Nepal, Bangladesh, Myanmar.

125. *Mystus cavasius* (Hamilton)*Pimelodus cavasius* Hamilton, 1822.*Macrones cavasius*: Day, 1889.*Mystus cavasius*: Mirza, 1990.*Distribution in Pakistan*

NWFP, Punjab, Sindh.

Distribution outside Pakistan

India, Nepal, Bangladesh, Myanmar, Malaysia, Indonesia (Java, Sumatra, Borneo).

126. *Mystus gulio* (Hamilton)*Pimelodus gulio* Hamilton, 1822.*Macrones gulio*: Day, 1889.*Mystus gulio*: Mirza, 1990.*Distribution in Pakistan*

Sindh, Balochistan (Lasbela).

Distribution outside Pakistan

India, Bangladesh, Sri Lanka, Myanmar, Thailand, Malaysia, Indonesia.

127. *Mystus horai* (Jayaram)*Mystus (Mystus) vittatus horai* Jayaram, 1955.*Mystus horai*: Mirza, 1990.*Distribution in Pakistan*

Punjab (Kalabagh), endemic.

128. *Mystus tengara* (Hamilton)*Pimelodus tengara* Hamilton, 1822.*Macrones tengara*: Day, 1889.*Mystus tengara*: Jayaram, 1977.

Distribution in Pakistan
NWFP, Punjab, Sindh.

Distribution outside Pakistan
India, Bangladesh.

129. *Mystus vittatus* (Bloch)
Silurus vittatus Bloch, 1797.
Macrones vittatus: Day, 1889.
Mystus vittatus: Mirza, 1990.

Distribution in Pakistan
NWFP, Punjab, Sindh.

Distribution outside Pakistan
India, Nepal, Bangladesh.

Genus *Sperata* Holly

130. *Sperata sarwari* (Mirza, Nawaz and Javed).
Aorichthys aor sarwari Mirza, Nawaz and Javed,
1992.
Sperata sarwari: Ferraris and Runge, 1999.

Ferraris and Runge (1999) suggested that if Indus population of *Sperata* proved to be distinct the valid name would be *Sperata sarwari*. In the Indus population the nasal barbels reach the eye whereas in *S. seenghala* the nasal barbels are short and do not reach the eye. There are other differences also, which will be discussed elsewhere. So the name *Sperata sarwari* is adopted for the Indus *Sperata*.

Distribution in Pakistan
NWFP, Punjab, Sindh, Balochistan, Azad Kashmir.

Distribution outside Pakistan
Afghanistan, India (Indus drainage system).

Family SISORIDAE
Genus *Bagarius* Bleeker

131. *Bagarius bagarius* (Hamilton)
Pimelodus bagarius Hamilton, 1822.
Bagarius yarrellii: Day, 1889.
Bagarius bagarius: Mirza, 1990.

Distribution in Pakistan
Punjab, Sindh.

Distribution outside Pakistan
India, Nepal, Bangladesh, Myanmar, Thailand,
Laos, Cambodia, Vietnam, Malaysia, Indonesia.

Genus *Gagata* Bleeker

132. *Gagata cenia* (Hamilton)
Pimelodus cenia Hamilton, 1822.
Gagata cenia: Day, 1889.

Distribution in Pakistan
NWFP, Punjab, Sindh.

Distribution outside Pakistan
India, Nepal, Bangladesh, Myanmar.

133. *Gagata pakistanica* Mirza, Perveen and Javed
Gagata pakistanica Mirza, Perveen and Javed,
1999.

Distribution in Pakistan
NWFP, Punjab, Probably endemic.

Genus *Glyptosternum* McClelland

134. *Glyptosternum reticulatum* McClelland and Griffith
Glyptosternon reticulatum McClelland and Griffith,
In: McClelland, 1842.

Distribution in Pakistan
Northern Areas, NWFP (upper parts of Indus,
Chitral, Swat, Kunhar rivers), Azad Kashmir.

Distribution outside Pakistan
Afghanistan, India, Ladakh, Kashmir, China
(Tibet).

Genus *Glyptothorax* Blyth

135. *Glyptothorax cavia* (Hamilton)
Pimelodus cavia Hamilton, 1822.
Euglyptosternum lineatum Day, 1877.
Glyptothorax cavia: Hora and Menon, 1948.

Distribution in Pakistan

NWFP, Punjab, Azad Kashmir.

Distribution outside Pakistan

India, Nepal, Bangladesh, Myanmar.

136. *Glyptothorax kashmirensis* Hora
Glyptothorax kashmirensis Hora, 1923.

Distribution in Pakistan

NWFP, Azad Kashmir.

Distribution outside Pakistan

Kashmir Valley, India (Himachal Pradesh).

137. *Glyptothorax naziri* Mirza and Naik
Glyptothorax naziri Mirza and Naik, 1969.

Distribution in Pakistan

NWFP, Punjab, Balochistan, Azad Kashmir.

138. *Glyptothorax pectinopterus* (McClelland)
Glyptosternon pectinopterus McClelland, 1842.
Glyptothorax pectinopterus: Hora, 1923.

Distribution in Pakistan

NWFP (Kunhar river drainage), Azad Kashmir.

Distribution outside Pakistan

Vale of Kashmir, India (Himachal Pradesh), Nepal.

139. *Glyptothorax punjabensis* Mirza and Kashmiri
Glyptothorax conirostris punjabensis Mirza and Kashmiri, 1971.
Glyptothorax punjabensis: Mirza, 1990.

Distribution in Pakistan

NWFP, Punjab, Balochistan, Azad Kashmir.

Distribution outside Pakistan

India (Punjab).

140. *Glyptothorax stocki* Mirza and Nijssen
Glyptothorax stocki Mirza and Nijssen, 1978.

Distribution in Pakistan

NWFP, Punjab, Azad Kashmir, Endemic.

141. *Glyptothorax telchitta sufii* Bashir and Mirza
Glyptothorax telchitta sufii Bashir and Mirza, 1975.

Distribution in Pakistan

NWFP, Punjab, Sindh.

Distribution outside Pakistan

India.

Genus *Nangra* Day

142. *Nangra nangra* (Hamilton)
Pimelodus nangra Hamilton, 1822.
Nangra buchmanii: Day, 1889.
Nangra nangra: Mirza, 1990.

Distribution in Pakistan

Punjab.

Distribution outside Pakistan

India, Nepal, Bangladesh.

143. *Nangra robusta* Mirza and Awan
Nangra robusta Mirza and Awan, 1973.

Distribution in Pakistan

Punjab (Kalabagh to D.G. Khan).

Distribution outside Pakistan

India (northwestern Rajasthan).

Genus *Sisor* Hamilton

144. *Sisor rabdophorus* Hamilton
Sisor rabdophorus Hamilton, 1822.

Distribution in Pakistan

Punjab, Sindh.

Distribution outside Pakistan

India, Nepal, Bangladesh.

Family SILURIDAE
Genus *Ompok* Lacepede

145. *Ompok bimaculatus* (Bloch)
Silurus bimaculatus Bloch, 1797.
Callichrous bimaculatus: Day, 1889.
Ompok bimaculatus: Mirza, 1990.

Distribution in Pakistan
NWFP, Punjab, Sindh.

Distribution outside Pakistan
India, Nepal, Bangladesh.

146. *Ompok pabda* (Hamilton)
Silurus pabda Hamilton, 1822.
Callichrous pabda: Day, 1889.
Ompok pabda: Mirza, 1990.

Distribution in Pakistan
NWFP, Punjab, Sindh, Balochistan, Azad
Kashmir.

Distribution outside Pakistan
Afghanistan, India, Nepal, Bangladesh,
Myanmar.

147. *Ompok sindensis* (Day)
Callichrous sindensis Day, 1877.
Ompok sindensis: Mirza, 1990.

Distribution in Pakistan
Sindh, Endemic.

Genus *Wallago* Bleeker

148. *Wallago attu* Bloch and Schneider
Silurus attu Bloch and Schneider, 1801.
Wallago attu: Day, 1889.

Distribution in Pakistan
NWFP, Punjab, Sindh, Balochistan, Azad
Kashmir.

Distribution outside Pakistan
India, Nepal, Bangladesh, Myanmar, Thailand,
Sri Lanka, Indonesia.

Family HETEROPNEUSTIDAE
Genus *Heteropneustes* Muller

149. *Heteropneustes fossilis* (Bloch)
Siluris fossilis Bloch, 1798.
Saccobranchus fossilis: Day, 1889.
Heteropneustes fossilis: Mirza, 1990.

Distribution in Pakistan
NWFP, Punjab, Sindh.

Distribution outside Pakistan
Iran (introduced), Iraq (introduced), India,
Nepal, Bangladesh, Sri Lanka, Myanmar, Thailand,
Laos.

Family AMBLYCIPITIDAE

Genus *Amblyceps* Blyth

150. *Amblyceps mangois* (Hamilton)
Pimelodus mangois Hamilton, 1822.
Amblyceps mangois: Day, 1889.

Distribution in Pakistan
Punjab, Sindh, Balochistan.

Distribution outside Pakistan
India, Nepal, Bangladesh, Myanmar, Thailand.

Family SCHILBEIDAE

Subfamily AILININAE

Genus *Ailia* Gray

151. *Ailia coila* (Hamilton)
Malapterurus coila Hamilton, 1822.
Ailia coila: Day, 1889.

Distribution in Pakistan
Punjab, Sindh.

Distribution outside Pakistan
India, Nepal, Bangladesh.

152. *Ailia punctata* (Day)
Ailichthys punctata Day, 1871.
Ailia punctata: Mirza, 1990.

Distribution in Pakistan
Punjab, Sindh.

Distribution outside Pakistan
India.

Subfamily SCHILBEINAE
Genus *Clupisoma* Swainson

153. *Clupisoma garua* (Hamilton)
Silurus garua Hamilton, 1822.
Pseudeutropius garua: Day, 1889.
Clupisoma garua: Mirza, 1990.

Distribution in Pakistan
Punjab, Sindh, Azad Kashmir.

Distribution outside Pakistan
India, Nepal, Bangladesh.

154. *Clupisoma naziri* Mirza and Awan
Clupisoma naziri Mirza and Awan, 1973.

Distribution in Pakistan
NWFP, Punjab, Azad Kashmir.

Distribution outside Pakistan
Not recorded.

Genus *Eutropiichthys* Bleeker

155. *Eutropiichthys vacha* (Hamilton)
Pimelodus vacha Hamilton, 1822.
Eutropiichthys vacha: Day, 1889.

Distribution in Pakistan
NWFP, Punjab, Sindh.

Distribution outside Pakistan
India, Nepal, Bangladesh.

Genus *Pseudeutropius* Bleeker

156. *Pseudeutropius atherinoides* (Bloch)
Silurus atherinoides Bloch, 1794.
Pseudeutropius atherinoides: Day, 1889.

Distribution in Pakistan
Punjab, Sindh.

Distribution outside Pakistan
India, Nepal, Bangladesh.

Superorder ACANTHOPTERYGII
Series MUGILIOMORHA
Order MUGILIFORMES
Family MUGILIDAE

Genus *Mugil* Linnaeus

157. *Mugil cephalus* Linnaeus
Mugil cephalus Linnaeus, 1758.
Mugil oeur: Day, 1889.

Distribution in Pakistan
Balochistan, Sindh.

Distribution outside Pakistan
Coastal areas in all the countries of the world,
cosmopolitan.

Genus *Sicamugil* Fowler

158. *Sicamugil cascasia* (Hamilton)
Mugil cascasia Hamilton, 1822.

Distribution in Pakistan
Punjab (up to Chashma Lake), Sindh.

Distribution outside Pakistan
India, Bangladesh, Myanmar.

Series ATHERINOMORPHA
Order BELONIFORMES
Family BELONIDAE

Genus *Xenentodon* Regan

159. *Xenentodon cancila* (Hamilton)
Esox cancila Hamilton, 1822.
Belon cancila: Day, 1889.
Xenentodon cancila: Misra, 1962.

Distribution in Pakistan
NWFP (up to Ghazi), Punjab, Sindh,
Balochistan.

Distribution outside Pakistan
India, Nepal, Bangladesh, Myanmar, Sri
Lanka, Malaysia, Thailand.

Order CYPRINODONTIFORMES
Family APLOCHEILIDAE

Genus *Aplocheilus* McClelland

160. *Aplocheilus blochii* (Arnold)
Haplochilus panchax var. *blochii* Arnold, 1911.
Aplocheilus blochii: Misra, 1962.

Distribution in Pakistan
Sindh.

Distribution outside Pakistan
India, Sri Lanka.

161. *Aplocheilus panchax* (Hamilton)
Esox panchax Hamilton, 1822.
Haplocheilus panchax: Day, 1889.
Aplocheilus panchax: Misra, 1962.

Distribution in Pakistan
Sindh, Balochistan (Sindh-Balochistan hills).

Distribution outside Pakistan
India, Nepal, Bangladesh, Myanmar, Malaysia,
Indonesia, Thailand.

Family CYPRINODONTIDAE

Genus *Aphanius* Nardo

162. *Aphanius dispar* (Ruppell)
Lebias dispar Ruppell, 1828.
Cyprinodon dispar: Day, 1889.
Aphanius dispar: Misra, 1962.

Distribution in Pakistan
Sindh, Balochistan.

Distribution outside Pakistan
Abyssinia, Palestine, Iraq, Iran, India (Kutch).

Family POECILIIDAE

Genus *Gambusia* Poey

163. *Gambusia affinis* (Baird and Girard)
Heterandria affinis Baird and Girard, 1853.

Gambusia affinis: Mirza, 1972.

Distribution in Pakistan

Punjab, Sindh, Balochistan (Exotic species,
introduced for the control of mosquitoes).

Distribution outside Pakistan

Native of USA, introduced in various parts of
the world for mosquito control.

Series PERCOMORPHA
Order CHANNIFORMES
Family CHANNIDAE

Genus *Channa* Scopoli

164. *Channa gachua* (Hamilton)
Ophiocephalus gachua Hamilton, 1822.
Channa gachua: Misra, 1962.

Distribution in Pakistan

NWFP (up to Mingora in Swat Valley), Punjab,
Sindh, Balochistan, Azad Kashmir.

Distribution outside Pakistan

Afghanistan, Iran, India, Nepal, Bangladesh,
Myanmar, Sri Lanka, Thailand, Malaysia,
Indonesia, China (Unnan, Hainan).

165. *Channa marulia* (Hamilton)
Ophiocephalus marulius Hamilton, 1822.
Channa marulius: Misra, 1962.

Distribution in Pakistan

NWFP (Vale of Peshawar), Punjab, Sindh,
Balochistan.

Distribution outside Pakistan

India, Nepal, Bangladesh, Myanmar, Sri
Lanka, Thailand, China.

166. *Channa punctata* (Bloch)
Ophiocephalus punctatus Bloch, 1793.
Channa punctatus: Misra, 1962.

Distribution in Pakistan

NWFP, Punjab, Sindh, Balochistan, Azad
Kashmir.

Distribution outside Pakistan

Afghanistan, India, Nepal, Bangladesh,
Myanmar, Sri Lanka, Thailand, Malaysia, China.

167. *Channa striata* (Bloch)
Ophiocephalus striatus Bloch, 1793.
Channa striatus: Misra, 1962.

Distribution in Pakistan

NWFP, Punjab, Sindh, Balochistan.

Distribution outside Pakistan

India, Nepal, Bangladesh, Myanmar, Sri
Lanka, Thailand, Malaysia, Indonesia, China,
Philippines.

Order PERCIFORMES
Family CHANDIDAE

Genus *Chanda* Hamilton

168. *Chanda nama* (Hamilton)
Chanda nama Hamilton, 1822.

Distribution in Pakistan

NWFP, Punjab, Sindh, Balochistan, Azad
Kashmir.

Distribution outside Pakistan

India, Nepal, Bangladesh.

Genus *Parambassis* Bleeker

169. *Parambassis baculis* (Hamilton)
Chanda baculis Hamilton, 1822.
Ambassis baculis: Day, 1829.
Parambassis baculis: Jayaram, 1999.

Distribution in Pakistan

NWFP, Punjab, Sindh, Azad Kashmir.

Distribution outside Pakistan

India, Nepal, Bangladesh.

170. *Parambassis ranga* (Hamilton)
Chanda ranga Hamilton, 1822.
Ambassis ranga: Day, 1889.
Parambassis ranga: Jayaram, 1999.

Distribution in Pakistan

NWFP, Punjab, Sindh, Azad Kashmir.

Distribution outside Pakistan

India, Nepal, Bangladesh, Myanmar, Malaysia.

Family NANDIDAE

Genus *Nandus* Valenciennes

171. *Nandus nandus* (Hamilton)
Coius nandus Hamilton, 1822.
Nandus marmoratus: Day, 1889.
Nandus nandus: Misra, 1962.

Distribution in Pakistan

NWFP (Vale of Peshawar), Punjab, Sindh.

Distribution outside Pakistan

India, Nepal, Bangladesh, Myanmar, Thailand,
Malaysia.

Family BADIDAE

Genus *Badis* Bleeker

172. *Badis badis* (Hamilton)
Labrus badis Hamilton, 1822.
Badis buchanani: Day, 1889.
Badis badis: Mirza, 1990.

Distribution in Pakistan

Sindh.

Distribution outside Pakistan

India, Bangladesh.

Family GOBIIDAE

Genus *Boleophthalmus* Valenciennes

173. *Boleophthalmus dussumieri* Valenciennes
Boleophthalmus dussumieri Valenciennes, 1837.
Boleophthalmus dentatus Valenciennes, 1837.

Distribution in Pakistan

Sindh, Balochistan (coastal areas).

Distribution outside Pakistan

Iraq, Iran, India, Bangladesh.

Genus *Glossogobius* Gill174. *Glossogobius giuris* (Hamilton)*Gobius giuris* Hamilton, 1822.*Glossogobius giuris*: Misra, 1962.*Distribution in Pakistan*

NWFP, Punjab, Sindh, Balochistan, Azad Kashmir.

Distribution outside Pakistan

Iran, India, Nepal, Bangladesh, Myanmar, Sri Lanka, East and south coast of Africa, Mauritius, Malaysia, Indonesia, Thailand, China, Japan, Philippines, Melanesia, Polynesia, Australia.

Family BELONTIDAE

Genus *Colisa* Cuvier175. *Colisa fasciata* Bloch and Schneider*Trichogaster fasciatus* Bloch and Schneider, 1801.*Colisa fasciata*: Ahmad, 1943.*Distribution in Pakistan*

NWFP, Punjab, Sindh.

Distribution outside Pakistan

India, Nepal, Bangladesh, Myanmar.

176. *Colisa lalia* (Hamilton)*Trichopodus lalius* Hamilton, 1822.*Colisa lalius*: Ahmad, 1943.*Distribution in Pakistan*

NWFP, Punjab, Sindh.

Distribution outside Pakistan

India, Nepal, Bangladesh, Myanmar.

Family CICHLIDAE

Genus *Oreochromis* Gunther177. *Oreochromis aureus* (Steindachner)*Chromis aureus* Steindachner, 1864.*Tilapia aurea*: Trewavas, 1964.*Sarotherodon aureus*: Trewavas, 1973.*Oreochromis aureus*: Trewavas, 1981.*Distribution in Pakistan*

NWFP, Punjab, Sindh, Balochistan (Exotic).

Distribution outside Pakistan

Introduced in various countries for fish culture in saline waters.

178. *Oreochromis mossambicus* (Peters)*Chromis (Tilapia) mossambicus* Peters, 1852.*Tilapia mossambica*: Boulenger, 1899.*Sarotherodon mossambicus*: Bell-Cross, 1976.*Oreochromis mossambicus*: Trewavas, 1981.*Distribution in Pakistan*

NWFP, Punjab, Sindh, Balochistan (introduced for fish culture in saline waters).

Distribution outside Pakistan

Native of Africa, now introduced for fish culture in saline waters in most of the countries of the world.

179. *Oreochromis niloticus* (Linnaeus)*Labrus niloticus* Linnaeus, 1758.*Chromis niloticus*: Cuvier, 1817.*Tilapia nilotica*: Boulenger, 1899.*Sarotherodon niloticus*: Trewavas, 1978.*Oreochromis niloticus*: Trewavas, 1981.*Distribution in Pakistan*

Introduced in saline waters in all the provinces of Pakistan.

Distribution outside Pakistan

Original home Egypt, but now introduced in various countries for fish culture in saline water.

Order SYNBRANCHIFORMES

Family SYNBRANCHIDAE

Genus *Monopterus* Lacepede180. *Monopterus cuchia* (Hamilton)*Unibranchiapertura cuchia* Hamilton, 1822.

Amphipnous cuchia: Day, 1889.
Cuchia cuchia: Mirza, 1975.
Monopterus cuchia: Mirza, 1990.

Distribution in Pakistan
 Punjab, Sindh.

Distribution outside Pakistan
 India, Nepal, Bangladesh, Myanmar.

Order MASTACEMBELIFORMES
 Family MASTACEMBELIDAE

Genus *Macrognathus* Lacepede

181. *Macrognathus aral* (Bloch and Schneider).
Rhynchobdella aral Bloch and Schneider, 1801.
Macrognathus aculeata (nec. Bloch): Day, 1889.
Macrognathus aral: Talwar and Jhingran, 1991.

Distribution in Pakistan
 Punjab, Sindh.

Distribution outside Pakistan
 India, Nepal, Bangladesh, Myanmar, Sri Lanka, Thailand, Vietnam, Laos, Malaysia, East Indies (Borneo and Mollucas).

182. *Macrognathus pancalus* Hamilton
Macrognathus pancalus Hamilton, 1822.
Mastacembelus pancalus: Day, 1889.

Distribution in Pakistan
 Punjab, Sindh.

Distribution outside Pakistan
 India, Nepal, Bangladesh.

Genus *Mastacembelus* Scopoli

183. *Mastacembelus armatus* (Lacepede)
Macrognathus armatus Lacepede, 1800.
Mastacembelus armatus: Day, 1889.

Distribution in Pakistan
 NWFP, Punjab, Sindh, Balochistan, Azad Kashmir.

Distribution outside Pakistan

India, Nepal, Bangladesh, Myanmar, Sri Lanka, Thailand, Malaysia, South China.

DISCUSSION

The freshwater fish fauna of Pakistan and Azad Kashmir is predominantly South Asian. There are, however, some elements of High Asian fauna represented by the snow-carps (subfamily Schizothoracinae, family Cyprinidae), Nemacheiline genus *Triplophysa* and catfish genus *Glyptosternum*. A few genera of West Asian affinities are represented by the genus *Cyprinion* and the genus *Aphanius* in addition to some species of West Asian affinities. No genus is endemic to Pakistan, but there are several species which appear to be endemic. These are mostly related to South Asian fauna except a few species related to West Asian or High Asian faunas.

The freshwater fish fauna is still not fully worked out. There are many problems. Some species of the genus *Schistura* described from Pakistan were questioned by Menon (1987). Most of the species synonymised by Menon (1987), were resurrected by Banarescu and Nalbant (1995). Banarescu and Nalbant's decision was accepted by Jayaram (1999). I have included these species as valid in this list following Kottelat (1998): "Anyway, as long as we have no detailed systematic studies of geographic variation for a given group, it is better to overestimate biodiversity than to underestimate it". ... "In systematics the precautionary approach is to give the benefit of the doubt to stocks of unresolved status".

I have changed some of the names of the species. The golden mahseer of the Indus system had been assigned to *Tor putitora* (Hamilton), *Tor tor* (Hamilton) and *Tor mosal* (Hamilton) by various authors. Actually this mahseer is different from all these three species. The name used by Heckel (1838) appears to be the correct name. Hence I have used the name *Tor macrolepis* for the Indus Golden Mahseer. Another similar change is adopted for the Indus *Singhari*. In the past the Indus population of *singhari* catfish was described under the names of *Aarichthys aor* (Hamilton) and *A. seenghala* (Sykes). It was realized that the Indus *Singhari* is

different from these species, hence the name *Sperata sarwari* (Mirza, Nwaz and Javed) is adopted in this checklist. The reasons for these changes will be discussed in a separate paper.

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