

ENDEMIC AMPHIBIANS OF INDIA

S. K. CHANDA

*Zoological Survey of India,
Calcutta 700 016*

and

KAUSHIK DEUTI

*Dept. of Zoology,
University of Calcutta
35 Ballygunge Circular Rd.
Calcutta 700 019*

*Present Address : 39A G. A. Road,
Calcutta 700 027*

INTRODUCTION

205 species of amphibians of 10 families and 33 genera have so far been reported from within the political boundaries of the Republic of India (Inger and Dutta, 1986; Chanda and Ghosh, 1988; Das, 1990; Dutta, 1992; Deuti, 1996). Of these, 123 species (i.e., 60%) under 8 families and 25 genera are considered to be endemic to India. In the present paper an attempt has been made to provide a list of all the endemic Indian amphibians together with their type localities and distribution.

SPECIES LIST

Order : APODA
Family : ICHTHYOPHIIDAE
Genus : *Ichthyophis* Fitzinger, 1826

1. *Ichthyophis beddomei* Peters, 1879

Type locality : Nilgherrie (Nilgiri), South India.
Distribution : Kerala, Tamil Nadu and Karnataka.

2. *Ichthyophis bombayensis* Taylor, 1960

Type locality : Waghai, Surat, Bombay (now in Gujrat).
Distribution : Gujrat, Maharashtra and Karnataka.

3. *Ichthyophis longicephalus* Pillai, 1986

Type locality : Silent valley, Kerala.
Distribution : Kerala (known from type locality only).

4. *Ichthyophis malabarensis* Taylor, 1960

Type locality : Maduvangard, Travancore, Kerala.
Distribution : Kerala and Karnataka.

5. *Ichthyophis peninsularis* Taylor, 1960

Type locality : Malabar, Kerala.
Distribution : Kerala and Tamil Nadu.

6. *Ichthyophis sikkimensis* Taylor, 1960

Type locality : Darjeeling, West Bengal.
Distribution : West Bengal and Sikkim.

7. *Ichthyophis subterrestris* Taylor, 1960

Type locality : Travancore, Cochin plains, Kerala.
Distribution : Kerala, Tamil Nadu and Maharashtra

8. *Ichthyophis tricolor* Annandale, 1909

Type locality : Maddathora, Cochin, Kerala.
Distribution : Kerala (known from type locality only).

Family : URAEOTYPHLIDAE
 Genus : *Uraeotyphlus* Peters, 1879

9. *Uraeotyphlus malabaricus* (Beddome, 1870)

Type locality : Malabar, Kerala.
Distribution : Kerala and Tamil Nadu.

10. *Uraeotyphlus menoni* Annandale, 1913

Type locality : Trichur, Cochin, Kerala.
Distribution : Kerala (known from type locality only).

11. *Uraeotyphlus narayani* Seshachar, 1939

Type locality : Kannam, 16 miles from Kottayam, Travancore, Kerala.
Distribution : Kerala and Karnataka.

12. *Uraeotyphlus oxyurus* (Dumeril and Bibron, 1841).

Type locality : Cote du Malabar, south India.
Distribution : Kerala and Tamil Nadu.

Family : CAECILIDAE
Genus : *Gegeneophis* Peters, 1879

13. *Gegeneophis carnosus* (Beddome, 1870).

Type locality : Periah peak at about 500 ft elevation, Wynaad, Kerala.
Distribution : Kerala.

14. *Gegeneophis fulleri* (Alcock, 1904).

Type locality : Kuttal, 6 miles south-west of Silchar in Cachar, Assam.
Distribution : Assam (known from type locality only).

15. *Gegeneophis ramaswami* Taylor, 1964

Type locality : Tenmalai forest, Pajapura near Trivandrum town, Kerala
Distribution : Kerala (known from type locality only).

Genus : *Indotyphlus* Taylor, 1960

16. *Indotyphlus battersbyi* Taylor 1960

Type locality : Khandala, Poona district, Maharashtra.
Distribution : Maharashtra.

Order : ANURA
Family : PELOBATIDAE
Genus : *Megophrys* Kuhl and Van Hasselt, 1822

17. *Megophrys robusta* (Boulenger, 1908).

Type locality : Darjeeling, West Bengal.
Distribution : West Bengal (known from type locality only).

Genus : *Scutiger* Theobald, 1868

18. *Scutiger occidentalis* Dubois, 1978.

Type locality : Shukdhari, Sonamarg, Kashmir
Distribution : Jammu and Kashmir (known from type locality only).

Family : BUFONIDAE
Genus : *Ansonia* Stoliczka, 1870

19. *Ansonia kamblei* Ravichandran and Pillai, 1990.

Type locality : Jeur, 29 kms north of Tembhurni, Karnala, Sholapur district, Maharashtra
Distribution : Maharashtra (known from type locality only).

20. *Ansonia ornata* Gunther, 1875.

Type locality : Brahmagiri hills in Coorg, Mysore, Karnataka
Distribution : Karnataka.

21. *Ansonia rubigina* Pillai and Pattabiraman, 1981.

Type locality : Kummattan Thodu, a tributary of river Kunthipuzha,
 Silent valley, alt 1005 meters, Kerala
Distribution : Kerala (known from type locality only).

Genus : *Bufo Laurenti*, 1768

22. *Bufo abatus* Ahl, 1925

Type locality : Darjeeling, West Bengal.
Distribution : West Bengal (known from type locality only).

23. *Bufo beddomei* Gunther, 1875

Type locality : Travancore hills, between 2500-4500 ft, Kerala.
Distribution : Kerala, Karnataka and Maharashtra

24. *Bufo brevirostris* Rao, 1937

Type locality : Kempcholey, Hassan, Karnataka
Distribution : Karnataka (known from type locality only).

25. *Bufo camortensis* Mansukhani and Sarkar, 1980

Type locality : Compound of Camorta guest house, Camorta, Nicobar
Distribution : Andaman and Nicobar Islands.

26. *Bufo hololius* Gunther, 1875

Type locality : Malabar, Kerala
Distribution : Kerala, Karnataka and Andhra Pradesh.

27. *Bufo koynayensis* Soman, 1963

Type locality : Hambali village, Koyna, Satara district, Maharashtra
Distribution : Maharashtra (known from type locality only).

28. *Bufo parietalis* Boulenger, 1882

Type locality : Malabar, Kerala
Distribution : Kerala, Karnataka and Maharashtra

29. *Bufo silentavalleyensis* Pillai, 1981

Type locality : Valiaparai Thodu, Silent valley forests, Kerala
Distribution : Kerala (known from type locality only).

Genus : *Bufoides* Pillai and Yazdani, 1973

30. *Bufoides meghalayana* (Yazdani and Chanda, 1971)

Type locality : Plateau of a large hill at Mawblang, about 5 kms by road south-east of Cherrapunji town. Meghalaya
Distribution : Meghalaya (known from type locality only).

Genus : *Pedostibes* Gunther, 1875

31. *Pedostibes kempi* (Boulenger, 1919)

Type locality : Tura, Garo hills, Assam (now in Meghalaya)
Distribution : Meghalaya and Mizoram

32. *Pedostibes tuberculosus* Gunther, 1875

Type locality : Malabar, Kerala
Distribution : Kerala (known from type locality only)

Family : MICROHYLIDAE

Genus : *Melanobatrachus* Beddome, 1878

33. *Melanobatrachus indicus* Beddome, 1878

Type locality : Anamallai hills, 4000 ft, Tamil Nadu
Distribution : Tamil Nadu

Genus : *Microhyla* Tschudi, 1838

34. *Microhyla chakrapani* Pillai, 1977

Type locality : Mayabunder, east of Burma temple, north Andaman
Distribution : Andaman Islands (known from type locality only)

Genus : *Ramanella* Rao and Ramanna, 1925

35. *Ramanella anamalaiensis* Rao, 1937

Type locality : Base of Anamallai hills, Coimbatore district, Tamil Nadu
Distribution : Tamil Nadu (known from type locality only)

36. *Ramanella minor* Rao, 1937

Type locality : Saklespur, Hassan, Karnataka
Distribution : Karnataka (known from type locality only)

37. *Ramanella montana* (Jerdon, 1854)

Type locality : Mountain streams in Wynaad, Kerala
Distribution : Kerala, Tamil Nadu, Karnataka, Goa, Maharashtra and Gujrat

38. *Ramanella marmorata* Rao, 1937

Type locality : Saklespur, Hassan, Karnataka
Distribution : Karnataka and Goa

39. *Ramanella triangularis* (Gunther, 1875)

Type locality : Hills of Nilgiris and Malabar, Kerala
Distribution : Kerala, Tamil Nadu and Karnataka

Family : RANIDAE
 Genus : *Indirana* Laurent, 1986

40. *Indirana beddomii* (Gunther, 1875)

Type locality : Malabar and Travancore in the Anamallays (Anamallais) and Sevagherry (Sivagiri), Kerala
Distribution : Kerala, Tamil Nadu, Karnataka and Maharashtra

41. *Indirana brachytarsus* (Gunther, 1875)

Type locality : Anamallais and Sivagiris, Kerala
Distribution : Kerala and Tamil Nadu

42. *Indirana diplostictus* (Gunther, 1875)

Type locality : Malabar, Kerala
Distribution : Kerala and Tamil Nadu

43. *Indirana gundia* (Dubois, 1985)

Type locality : Saklespur, Hassan, Karnataka
Distribution : Karnataka (known from type locality only)

44. *Indirana leithii* (Boulenger, 1888)

Type locality : ~~Matheran, Bombay, Maharashtra~~
Distribution : Kerala, Tamil Nadu, Karnataka, Maharashtra, Gujrat and Madhya Pradesh

45. *Indirana leptodactylus* (Boulenger, 1882)

Type locality : Malabar forests, Kerala
Distribution : Kerala, Tamil Nadu and Karnataka

46. *Indirana phrynoderma* (Boulenger, 1882)

Type locality : Anamallays (Anamallais), Kerala
Distribution : Kerala (known from type locality only)

47. *Indirana semipalmatus* (Boulenger, 1882)

Type locality : Malabar, Kerala
Distribution : Kerala, Tamil Nadu and Karnataka

48. *Indirana tenuilingua* (Rao, 1937)

Type locality : Kempholey Ghats, Hassan, Karnataka
Distribution : Karnataka (known from type locality only)

Genus : *Limnonectes* Fitzinger, 1843

49. *Limnonectes andamanensis* (Stoliczka, 1870)

Type locality : Port Blair, south Andaman Island
Distribution : Andaman Islands

50. *Limnonectes brevipalmata* (Peters, 1871)

Type locality : Malabar, Kerala
Distribution : Kerala, Tamil Nadu and Karnataka

51. *Limnonectes keralensis* (Dubois, 1980)

Type locality : Malabar, Kerala
Distribution : Kerala, Tamil Nadu, Karnataka, Goa, Maharashtra and Gujrat

52. *Limnonectes khasiensis* (Anderson, 1871)

Type locality : Khasi hills, Assam (now in Meghalaya)
Distribution : Meghalaya

53. *Limnonectes mawphlangensis* (Pillai and Chanda, 1977)

Type locality : Mawphlang, Khasi hills, Meghalaya
Distribution : Meghalaya, West Bengal, Manipur and Mizoram

54. *Limnonectes murthii* (Pillai, 1979)

Type locality : Naduvattom forest, 18 kms from Gudallur, Tamil Nadu
Distribution : Tamil Nadu, Kerala and Karnataka

55. *Limnonectes nilagirica* (Jerdon, 1853)

Type locality : Marshes in the Wynaad and Neelgherries (Nilgiris), Kerala
Distribution : Kerala and Tamil Nadu

56. *Limnonectes sauriceps* (Rao, 1937)

Type locality : Wattedkole, Coorg, Karnataka
Distribution : Karnataka

57. *Limnonectes shompenorum* Das, 1996

Type locality : 2 km east of Kopen heat, ca 14 km on the east-west road,
 Great Nicobar Island
Distribution : Great Nicobar Island (known from type locality only)

Genus : *Micrixalus* Boulenger, 1888

58. *Micrixalus borealis* Annandale, 1912

Type locality : Rotung, Abor hills, Arunachal Pradesh
Distribution : Arunachal Pradesh (known from type locality only)

59. *Micrixalus fuscus* (Boulenger, 1882)

Type locality : Hills of south-western India
Distribution : Kerala, Tamil Nadu and Karnataka

60. *Micrixalus gadgili* Pillai and Pattabiraman, 1990

Type locality : Dynamite house, Pamba, Sabarigiri forest, Kerala
Distribution : Kerala (known from type locality)

61. *Micrixalus nudis* Pillai, 1978

Type locality : A small brook inside the Kurichiat reserve forest, 8 kms north of Forest Rest House at Chedleth, Wynaad, Kerala
Distribution : Kerala

62. *Micrixalus opisthorhodus* (Gunther, 1868)

Type locality : Nilgiri hills, south India
Distribution : Kerala, Karnataka and Tamil Nadu

63. *Micrixalus saxicola* (Jerdon, 1853)

Type locality : Malabar, Kerala
Distribution : Kerala and Karnataka

64. *Micrixalus silvaticus* (Boulenger, 1882)

Type locality : Malabar, Kerala
Distribution : Kerala and Tamil Nadu

65. *Micrixalus thampii* Pillai, 1981

Type locality : Madari Mavam Thodu, tributary of river Kunthipuzha, Silent valley, alt 900 meters, Kerala
Distribution : Kerala (known from type locality only)

Genus : *Nyctibatrachus* Boulenger, 1882

66. *Nyctibatrachus aliciae* Inger, Shaffer, Koshy and Bakde, 1984

Type locality : Ponmudi, Trivandrum district, Kerala
Distribution : Kerala, Karnataka and Tamil Nadu

67. *Nyctibatrachus beddomii* (Boulenger, 1882)*Type locality* : Tinnevelly hills, Malabar, Kerala*Distribution* : Kerala and Tamil Nadu68. *Nyctibatrachus deccanensis* Dubois, 1984*Type locality* : Anamallai hills, south India*Distribution* : Kerala and Tamil Nadu69. *Nyctibatrachus humayuni* Bhaduri and Kripalani, 1955*Type locality* : Near way side hill stream, Mahabaleshwar, Satara district, Maharashtra*Distribution* : Maharashtra, Karnataka and Goa70. *Nyctibatrachus kempholeyensis* Rao, 1937*Type locality* : Hills of Kempholey Ghats, Hassan, Karnataka*Distribution* : Karnataka (known from type locality only)71. *Nyctibatrachus major* Boulenger, 1882*Type locality* : Malabar, Kerala*Distribution* : Kerala, Tamil Nadu and Karnataka72. *Nyctibatrachus minor* Inger, Shaffer, Koshy and Bakde, 1984*Type locality* : Ponmudi, Trivandrum district, Kerala*Distribution* : Kerala (known from type locality only)73. *Nyctibatrachus sanctipalustris* Rao, 1920*Type locality* : The sacred swamps of the Cauvery, Brahmagiri hills, 4000 ft, Coorg, Karnataka*Distribution* : Karnataka (known from type locality only)74. *Nyctibatrachus sylvaticus* Rao, 1937*Type locality* : Forests of Kempholey, Saklespur, Hassan, Karnataka*Distribution* : Karnataka (known from type locality only)Genus : *Occidozyga* Kuhl and Van Hasselt, 188275. *Occidozyga ghoshi* (Chanda, 1990)*Type locality* : Khugaik reserve forest, Manipur*Distribution* : Manipur (known from type locality only)

Genus : *Pterorana* Kiyasetuo and Khare, 1986

76. *Pterorana khare* Kiyasetuo and Khare, 1986

Type locality : Sanuoru and Rukhroma waterfalls, Kohima, Nagaland
Distribution : Nagaland (known from type locality only)

Genus : *Rana* Linnaeus, 1758

77. *Rana bilineata* Pillai and Chanda, 1981

Type locality : Dianadubi forest, Garo hills, Meghalaya
Distribution : Meghalaya (known from type locality only)

78. *Rana curtipes* Jerdon, 1853

Type locality : Malabar, Kerala
Distribution : Kerala, Karnataka and Tamil Nadu

79. *Rana garoensis* Boulenger, 1920

Type locality : Tura, Garo hills, alt 3500-3900 ft, Meghalaya
Distribution : Meghalaya (known from type locality only)

80. *Rana intermedius* Rao, 1937

Type locality : Saklespur, Hassan, Karnataka
Distribution : Karnataka (known from type locality only)

81. *Rana malabarica* Tschudi, 1838

Type locality : Malabar hills, Kerala
Distribution : Kerala, Tamil Nadu, Karnataka, Goa, Madhya Pradesh and Gujrat

82. *Rana mawlyndipi* Chanda, 1990

Type locality : Mawlyndip, Khasi hills, Meghalaya
Distribution : Meghalaya (known from type locality only)

83. *Rana senchalensis* Chanda, 1986

Type locality : Senchal lake, Darjeeling district, West Bengal
Distribution : West Bengal (known from type locality only)

84. *Rana tuberculata* Tilak and Ray, 1985

Type locality : Kheel Gad, west of Purari, Chakrata hills, Dehradun, Uttar Pradesh
Distribution : Uttar Pradesh (known from type locality only)

Genus : *Tomopterna* Dumeril and Bibron, 1841

85. *Tomopterna dobsonii* (Boulenger, 1882)

Type locality : Mangalore, south Kannara, Karnataka
Distribution : Tamil Nadu, Karnataka, Andhra Pradesh and Maharashtra

86. *Tomopterna leucorhynchus* (Rao, 1937)

Type locality : Wattakole, Coorg, Karnataka
Distribution : Karnataka (known from type locality only)

87. *Tomopterna parambikulamana* (Rao, 1937)

Type locality : Parambikulam forest, Cochin, Kerala
Distribution : Kerala (known from type locality only)

88. *Tomopterna rufescens* (Jerdon, 1854)

Type locality : Malabar, Kerala
Distribution : Kerala, Karnataka, Goa and Maharashtra

Family : RHACOPHORIDAE

Genus : *Chirixalus* Boulenger, 1893

89. *Chirixalus simus* Annandale, 1915

Type locality : Mangaldai, north of Brahmaputra, Assam
Distribution : Assam (known from type locality only)

Genus : *Philautus* Gistel, 1848

90. *Philautus beddomii* (Gunther, 1875)

Type locality : Atray Mallay, Travancore, 4000 ft, Kerala
Distribution : Kerala and Tamil Nadu

91. *Philautus bombayensis* (Annandale, 1919)

Type locality : Castle rock, Bombay, Maharashtra
Distribution : Maharashtra, Karnataka and Goa

92. *Philautus chalazodes* (Gunther, 1875)

Type locality : Travancore, Kerala
Distribution : Kerala, Tamil Nadu and Karnataka

93. *Philautus charius* Rao, 1937

Type locality : Kottigehar, Kadur, Karnataka
Distribution : Karnataka, Kerala and Tamil Nadu

94. *Philautus cherrapunjiae* Roonwal and Kripalani, 1961

- Type locality* : Near Circuit house, 3 kms from Cherrapunji town, Khasi-Jaintia hill district, alt 1330 metres, Assam (now in Meghalaya)
Distribution : Meghalaya and Arunachal Pradesh

95. *Philautus crnri* Dutta, 1985

- Type locality* : Kempholey, Hassan, Karnataka
Distribution : Karnataka (known from type locality only)

96. *Philautus elegans* Rao, 1937

- Type locality* : Kempholey, Hassan, Karnataka
Distribution : Karnataka (known from type locality only)

97. *Philautus flaviventris* (Boulenger, 1882)

- Type locality* : Malabar, Kerala
Distribution : Kerala

98. *Philautus garo* (Boulenger, 1919)

- Type locality* : Tura, Garo hills, Assam (now in Meghalaya)
Distribution : Meghalaya (known from type locality only)

99. *Philautus glandulosus* (Jerdon, 1853)

- Type locality* : Kudra Mukh, south India
Distribution : Tamil Nadu, Kerala and Maharashtra

100. *Philautus hassanensis* Dutta, 1985

- Type locality* : Hills of Kempholey, Hassan, Karnataka
Distribution : Karnataka (known from type locality only)

101. *Philautus kempiae* (Boulenger, 1919)

- Type locality* : Tura, Garo hills, Assam (now in Meghalaya)
Distribution : Meghalaya (known from type locality only)

102. *Philautus kottigeharensis* Rao, 1937

- Type locality* : Kottigehar, Kadur, Karnataka
Distribution : Karnataka (known from type locality only)

103. *Philautus melanensis* Rao, 1937

- Type locality* : Kempholey, Hassan, Karnataka
Distribution : Karnataka (known from type locality only)

104. *Philautus namdaphaensis* Sarkar and Sanyal, 1985

Type locality : Farmbase camp, Tirap, Changlang district, Arunachal Pradesh
Distribution : Arunachal Pradesh (known from type locality only)

105. *Philautus narainensis* Rao, 1937

Type locality : Kottigehar, Kadur, Karnataka
Distribution : Karnataka (known from type locality only)

106. *Philautus noblei* (Ahl, 1927)

Type locality : Malabar, Kerala
Distribution : Kerala (known from type locality only)

107. *Philautus parkeri* (Ahl, 1927)

Type locality : Malabar, Kerala
Distribution : Kerala (known from type locality only)

108. *Philautus pulcherrimus* (Ahl, 1927)

Type locality : Manantoddy, south India
Distribution : Kerala and Tamil Nadu

109. *Philautus shillongensis* Pillai and Chanda, 1973

Type locality : Malki forest, Shillong, Meghalaya
Distribution : Meghalaya (known from type locality only)

110. *Philautus shyamrupus* Chanda and Ghosh, 1989

Type locality : Hornbill camp, Namdapha biosphere reserve, Arunachal Pradesh
Distribution : Arunachal Pradesh (known from type locality only)

111. *Philautus signatus* (Boulenger, 1882)

Type locality : Malabar, Kerala
Distribution : Kerala and Tamil Nadu

112. *Philautus swamianus* Rao, 1937

Type locality : Kottigehar, Kadur, Karnataka
Distribution : Karnataka (known from type locality only)

113. *Philautus travancoricus* (Boulenger, 1891)

Type locality : Bodanaikanur, Travancore, foot of hills on eastern side, Kerala
Distribution : Kerala (known from type locality only)

Genus : *Polypedates* Tschudi, 1838

114. *Polypedates insularis* Das, 1995

Type locality : 2 kms east mouth of Galathea river, Galathea National Park, Great Nicobar.
Distribution : Great Nicobar (known from type locality only)

Genus : *Rhacophorus* Kuhl and Van Hasselt, 1822

115. *Rhacophorus calcadensis* Ahl, 1927

Type locality : Calcad (Kalakkad) hills, Tinnenvely, Tamil Nadu
Distribution : Tamil Nadu (known from type locality only)

116. *Rhacophorus dubius* Boulenger, 1882

Type locality : Darjeeling, West Bengal
Distribution : West Bengal (known from type locality only)

117. *Rhacophorus jerdonii* (Gunther, 1875)

Type locality : Darjeeling, West Bengal
Distribution : West Bengal (known from type locality only)

118. *Rhacophorus lateralis* Boulenger, 1883

Type locality : Malabar, Kerala
Distribution : Kerala (known from type locality only)

119. *Rhacophorus malabaricus* Jerdon, 1870

Type locality : Malabar, Kerala
Distribution : Kerala, Tamil Nadu, Karnataka and Goa

120. *Rhacophorus namdaphnensis* Sarkar and Sanyal, 1985

Type locality : Namdapha camp, 58 kms from Miao, Tirap district, Arunachal Pradesh
Distribution : Arunachal Pradesh (known from type locality only)

121. *Rhacophorus naso* Annandale, 1912

Type locality : Egar stream, between Renging and Rotung, Arunachal Pradesh
Distribution : Arunachal Pradesh (known from type locality only)

122. *Rhacophorus pleurostictus* (Gunther, 1864)

Type locality : Madras, Tamil Nadu
Distribution : Tamil Nadu and Kerala

123. *Rhacophorus tuberculatus* (Anderson, 1871)

Type locality : Sibsagar, Assam
Distribution : Assam, West Bengal and Arunachal Pradesh

CONCLUSION

Of the 123 endemic species of amphibians in India, 89 species (72.35%) are endemic to the Western Ghats in south India and 27 species (21.95%) are endemic to North-eastern India. Therefore, these are the two biodiversity hot spots which require immediate conservation measures.

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