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CHECKLIST OF TERRESTRIAL GASTROPODS OF KERALA, INDIA

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INTRODUCTION

Leaf litter and soil form an arena for diverse interactions in tropical rain forests. It harbours many minute organisms, which play an important role in nutrient recycling. Molluscs belong to this ecological niche forming the epigeic species, which live and feed on the soil surface. Unfortunately, for the last 75 years or so, in South India, no attention has been paid for this important group with exceptions of some localized reviews and publications (Satyamurthy, 1960; Tonapi and Mulhekar, 1963; Tonapi 1971; Subba Rao and Mitra, 1979, 1986; Madhyastha *et al.*, 2003, 2005; Mavinkurve *et al.*, 2004b, in press; Sandhya *et al.*, submitted). This report is in continuation of the list of the land snails present in the southern states that is being formulated (Mavinkurve *et al.*, 2004a) so that it will be helpful for any worker in the future to file new reports and carry further ecological studies.

KERALA STATE

Kerala described, as gods own country having an area of 38,863 sq km is tucked away in the southwest corner of India. It is geographically divided into the highlands, midlands and lowlands. The highlands slope down from the Western Ghats, which rise to an average height of 900 m, with a number of peaks well over 1,800 m in height. The Silent Valley and Periyar are important protected areas of the state, forming mega diversity centres at micro scales. The Wynaad area is home for major plantations like tea, coffee, teak, rubber, cardamom and other spices. The midlands, lying between the mountains and the lowlands, are made up of undulating hills and valleys. The lowlands or the coastal area is made up of the river deltas, backwaters and the shore of the Arabian Sea.

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Kerala is a land of rivers and backwaters. Forty-four rivers (41 west-flowing and 3 east-flowing) cut across Kerala with their innumerable tributaries and branches. The temperature is hot and humid in the low lands, whereas in the highlands it is on the cooler side.

**LIST OF LAND MOLLUSCS FROM KERALA BASED ON FAUNA OF
BRITISH INDIA AND EXISTING LITERATURE**

Class GASTROPODA

Sub Class PROSOBRANCHIA

Order MESOGASTROPODA

Super Family CYLOPHOROIDEA

Family CYCLOPHORIDAE

Genus *Alycaeus* Gray 1850

1. *Alycaeus expatriatus* (Blanford 1860)*
2. *Alycaeus footei* (Blanford 1861)*

Genus *Craspedotropis* Blanford 1864

3. *Craspedotropis bilirata* Beddome 1875*

Genus *Cyathopoma* Blanford 1861

4. *Cyathopoma anamullayanum* Beddome 1875*
5. *Cyathopoma atrosetosum* Beddome 1875*
6. *Cyathopoma imperforatum* (Nevill 1888)*
7. *Cyathopoma latilabre* Beddome 1875*
8. *Cyathopoma nitidum* Beddome 1875*
9. *Cyathopoma procerum* (Blanford 1868)*
10. *Cyathopoma travancoricum* Beddome 1875*
11. *Cyathopoma wynaadense* (Blanford 1868)*

Genus *Cyclophorus* Montfort 1810

12. *Cyclophorus jerdoni* (Benson 1851)*
13. *Cyclophorus nilagiricus* (Benson 1852)*

Genus *Ditropis* Blanford 1869

14. *Ditropis beddomei* Blanford 1869*
15. *Ditropis convexa* Blanford 1869*
16. *Ditropis planorbis* Blanford 1869*

Genus *Micraulax* Theobald 1876

17. *Micraulax coeloconus* (Benson 1851)
18. *Micraulax scabra* (Theobald 1876)*

Genus *Mychopoma* Blanford 1861

19. *Mychopoma hirsutum* Blanford 1869*
20. *Mychopoma limbiferum* Blanford 1869

Genus *Pearsonia* Kobelt 1902

21. *Pearsonia travancorica* Blanford 1880*

Genus *Pterocyclus* Benson 1832

22. *Pterocyclus comatus* Moellendorff 1897*
23. *Pterocyclus cumingi* (Pfeiffer 1851)
24. *Pterocyclus cyclophoroideus* (G. Nevill 1881)*
- 24a. *Pterocyclus cyclophoroideus* var. *subluteola* (G. Nevill 1881)
25. *Pterocyclus nanus* (Benson 1851)*
26. *Pterocyclus pseudocumingi* Moellendorff 1897*

Genus *Theobaldius* G. Nevill 1878

27. *Theobaldius deplanatus* (Pfeiffer 1854)*
28. *Theobaldius ravidus* (Benson 1851)*

Family DIPLOMMATINIDAE

Genus *Nicida* W. Blanford 1868

29. *Nicida anamullayana* Beddome 1875*
30. *Nicida nitidula* (Blanford 1868)*

Genus *Opisthostoma* W. and H. Blanford 1860

31. *Opisthostoma macrostoma* Blanford 1869*

Family PUPINIDAE

Genus *Tortulosa* Gray 1847

32. *Tortulosa albescens* Blanford 1880*
33. *Tortulosa calacadensis* Blanford 1869*
34. *Tortulosa recurvata* (Pfeiffer 1862)*
35. *Tortulosa tortuosa* (Chemintz 1795)*

Sub class PULMONATA

Order STYLOMMATOPHORA

Sub Order ORTHURETHRA

Super family PUPILLOIDEA

Family VALLONIIDAE

Genus *Vallonia* Risso 1826

36. *Vallonia miserrima* (Gude 1907)*

Super family BULUMINOIDEA

Family BULUMINIDAE

Genus *Ena* Leach in Turton 1831

37. *Ena nilagirica* (Pfeiffer 1846)*

Family CERASTUIDAE

Genus *Cerastua* Strand 1928

38. *Cerastua densus* (Pfeiffer 1856)

Genus *Rhachis* Albers 1850

39. *Rhachis bengalensis* (Lamarck 1822)

40. *Rhachis pulcher* (Gray 1825)

41. *Rhachis punctatus* (Anon 1834)

42. *Rhachis trutta* (Blanford 1866)*

Sub order SIGMURETHRA

Super family ACHATINOIDEA

Family SUBULINIDAE

Genus *Opeas* Albers 1850

43. *Opeas gracile* (Hutton 1834)

Genus *Glessula* Von Martens 1860

44. *Glessula anamullica* (Blanford 1866)*

45. *Glessula beddomei* (Blanford 1866)*

46. *Glessula bensoniana* (Pfeiffer 1851)*

47. *Glessula blanda* Gude 1914*

48. *Glessula deshayesi* (Pfeiffer 1852)

49. *Glessula facula* (Benson 1860)

50. *Glessula filosa* Blanford 1870*

51. *Glessula gemma* (Reeve 1850)

52. *Glessula gracilis* Beddome 1906*
53. *Glessula hebes* (Pfeiffer 1868)
54. *Glessula indica* Gude 1914*
55. *Glessula isis* (Hanley 1875)*
56. *Glessula jerdoni* (Reeve 1850)
57. *Glessula malabarica* Gude 1914*
58. *Glessula neglecta* Gude 1914*
59. *Glessula oreas* (Reeve 1850)*
60. *Glessula orophila* (Reeve 1849)
61. *Glessula paupercula* (Blanford 1861)*
62. *Glessula pusilla* Beddome 1906
63. *Glessula reynelli* var. *immitis* Gude 1914
64. *Glessula scrutillus* (Benson 1860)
65. *Glessula senator* (Hanley 1875)*
66. *Glessula subinornata* var. *minor* Beddome 1906*
67. *Glessula subjerdoni* Beddome 1906
68. *Glessula subserena* Beddome 1906*
69. *Glessula subtornensis* Gude 1914*
70. *Glessula textilis* (Blanford 1866)*
71. *Glessula tornensis* Blanford 1870*
72. *Glessula travancorica* Gude 1914*

Super family STREPTAXOIDEA

Family STREPTAXIDAE

Genus *Streptaxis* Gray 1837

73. *Streptaxis beddomii* Blanford 1899*
74. *Streptaxis peroteti* (Petit 1841)
75. *Streptaxis personatus* Blanford 1880*
76. *Streptaxis watsoni* (W and H Blanford 1860)*

Genus *Ennea* H. and A. Adams 1855

77. *Ennea bicolor* (Hutton 1834)
78. *Ennea turricula* Blanford 1899*

Super family PLECTOPYLIDOIDEA

Family PLECTOPYLIDIDAE (Corillidae)

Genus *Corilla* H. and A. Adams 1855

79. *Corilla anax* (Benson 1865)*

Super family PUNCTOIDEA

Family ENDODONTIDAE

Genus *Philalanka* Godwin-Austen 1898

80. *Philalanka pirrieana* (Pfeiffer 1854)*

81. *Philalanka quinquelirata* Gude 1914*

Family CHAROPIDAE

Genus *Ruthvenia* Gude 1911

82. *Ruthvenia clathratuloides* (Gude 1897)*

Genus *Thysanota* Albers 1860

83. *Thysanota guerini* (Pfeiffer 1842)*

Sub order ELASMOGNATHA

Super family HELIXARIONOIDEA

Family HELIXARIONIDAE

Genus *Pseudaustenia* Cockerell 1891

84. *Pseudaustenia atra* (Godwin-Austen 1898)*

Family ARIOPHANTIDAE

Genus *Ariophanta* Desmoulins 1829

85. *Ariophanta cysis* (Benson 1852)*

86. *Ariophanta thyreus* (Benson 1852)*

Genus *Cryptozona* Morch 1872

87. *Cryptozona belangeri* (Deshyes 1834)

88. *Cryptozona gassi* (Blanford 1901)*

89. *Cryptozona semirugata* (Beck 1837)

Genus *Hemiplecta* Albers 1850

90. *Hemiplecta basilessa* (Benson 1865)*

91. *Hemiplecta basileus* (Benson 1861)*

92. *Hemiplecta beddomei* (Blanford 1874)*

Genus *Indrella* Godwin-Austen 1901

93. *Indrella ampulla* (Benson 1850)*

Genus *Euplecta* Semper 1870

94. *Euplecta acuducta* (Benson 1850)

95. *Euplecta albizonata* (Dohrn 1853)

96. *Euplecta apicata* Blanford 1870*

97. *Euplecta indica* (Pfeiffer 1846)
 97a. *Euplecta indica* var. *shiplayi* (Pfeiffer 1856)
 98. *Euplecta mucronifera* (Blanford 1901)*
 99. *Euplecta orbiates* (Blanford 1901)*
 100. *Euplecta pulchella* (Blanford 1904)*
 101. *Euplecta semidecussata* (Pfeiffer 1851)
 102. *Euplecta subcastor* (Beddome 1891)*
 103. *Euplecta travancorica* (Pfeiffer 1865)*

Genus *Mariaella* Gray 1855

104. *Mariaella beddomei* (Godwin-Austen 1888)*
 105. *Mariaella dussumeri* (Gray 1855)*

Genus *Macrochlamys* Benson 1832

106. *Macrochlamys peringundensis* (Beddome 1891)*
 107. *Macrochlamys prava* (Pfeiffer 1851)
 108. *Macrochlamys rutila* (Pfeiffer 1851)*
 109. *Macrochlamys vallicola* (Pfeiffer 1851)
 110. *Macrochlamys woodiana* (Pfeiffer 1851)

Genus *Sitala* H. Adams 1865

111. *Sitala injussa* (Blanford 1861)*
 112. *Sitala palmaria* (Benson 1864)*

Genus *Satiella* Godwin-Austen 1908

113. *Satiella compressa* (Godwin-Austen 1908)*
 114. *Satiella pertenuis* (Godwin-Austen 1908)*

Super family CAMAENOIDEA

Family CAMAENIDAE

Genus *Amphidromus* Albers 1850

115. *Amphidromus bontiae* (Chemnitz 1786)
 116. *Amphidromus physalis* (Benson 1857)*

Genus *Apatetes* Gude 1914

117. *Apatetes bourdilloni* (Hartmann 1842)*

Genus *Trachia* Albers 1860

118. *Trachia proxima* (Ferrussac 1832)*
 119. *Trachia vittata* (Muller 1774)

*Endemic to peninsular India and Sri Lanka.

DISCUSSION

This is the first comprehensive checklist of land snails for Kerala state. A total of one hundred and nineteen species excluding the varieties are present in the state. Most of the species have been recorded from the Annamalai and Wynaad regions. Subba Rao and Mitra (1986) have reported six species from the Silent Valley expedition. Since the Annamalai ranges and Agastyamalai peaks are shared with neighbouring Tamil Nadu most of the species are common with the latter. Of the twenty-two families present in the Western Ghats fourteen are present in Kerala state. It is home to some of the unique genera like *Corilla*, *Indrella* and *Cerastua*. The old system of classification has changed to a considerable extent from that followed in the Fauna series, This list tries to ease the confusion by following the latest and considered to be the most comprehensive classification of the present day Mollusca, compiled by K.C. Vaught, (1989). We hope this list will stimulate interest in gathering additional information on the distribution, ecology and the status of the species presented.

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