

## A CHECKLIST OF BIRDS OF NELLIAMPATHY HILLS, SOUTHERN WESTERN GHATS

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### ABSTRACT

A bird study conducted at Nelliampathies, southern Western Ghats came up with a total checklist of 197 species with seven Red List and 13 Range Restricted species. A comprehensive checklist of 233 species, which includes observations from several previous studies, is provided. Range extension is reported in two subspecies, Grey-breasted Laughingthrush (*Garrulax jerdoni fairbanki*) and Brown Rock Pipit (*Anthus similis travancoriensis*) found in the southern Western Ghats. Moreover, 16 species of birds that were recorded by A.P. Kinloch in late 1920s could not be located during the present study. In comparison with earlier studies by A.P. Kinloch, there is a general down trend in birds occupying the under storey vegetation which is of great concern.

### KEYWORDS

Bird, checklist, endemic, Kerala, Nelliampathy, range extension, threatened, Western Ghats

The Western Ghats, identified as one of the biodiversity hotspots of the world, is a 1,600km long chain of mountain ranges running parallel to the western coast of the Indian peninsula. The Palghat (Palakkad) gap is about 40km wide lowland, which breaks this otherwise continuous mountain range. It forms a major natural barrier between the high hills of the Nilgiris and Anamalais, isolating the endemic life forms of the two high altitude habitats. Nelliampathy hills (or Nelliampathies) is a mountainous and plateau land lying immediately south of the Palghat gap. Biogeo-graphically, these forests are of great interest as they form the northern most range for many species of life forms that are endemic to southern Western Ghats.

The Nelliampathy hills form the southern and the southwestern margin of the Palghat gap and they extend south, enclosing the Parambikulam basin. The western edge of the Nelliampathies gradually descends to the midlands of Thrissur district through a wide foothill zone drained by Puzhackal and Karuvannur rivers. The northwestern corner of the Nelliampathies extends far northwest almost up to Bharathapuzha as a 'spur hill', the Pattikkad-Vadakkancherry-Vazhani hills. The Parambikulam basin drains towards south and west through the Chalakkudy river. The eastern border of the Parambikulam basin so formed by the Anamalais, a high ridge which starts from near the southeastern corner of the Palghat gap and sweeps south and southeast meeting with the High Range, near Anamudi. South, in between the southern Idamalar-Pooyamkutty valley, and the southern edge of the Parambikulam basin, there is the east-west Chalakkudy valley, the upper reaches of which are formed by Sholayar, a tributary of the Chalakkudy river and the lower reaches by the main Chalakkudy river. Part of the Anamalais, upper reaches of Sholayar and the eastern parts of the Parambikulam basin are

in Tamil Nadu. This extensive, slightly lower basin, sheltered by the Nelliampathies in the north, Anamalais in the east and the Kannan Devan hill in the south draining through the Periyar as well as the Chalakkudy rivers had, until recently, one of the most extensive tropical moist forests in the entire Western Ghats (Nair, 1991).

The present study attempts to assess the avifaunal wealth of Nelliampathy hills, which has been considered as quite rich and diverse. A.P. Kinloch, an early time British planter, had reported a series of observations from these hills during the early 20<sup>th</sup> century (Kinloch 1921a,b,c; 1923a,b). Since then, apart from random reports and observations (Hussain & Khan, 1977; Khan, 1977; Vijayan, 1978; Zacharias & Gaston, 1999; Prasad & Vijayan, 2002; Praveen (*unpublished data from 1996 to 2003*)), there has not been any comprehensive study in these hills. In this context, this work comes at the right time where we also try to compare in qualitative terms the changes in ornithology in these hills, in comparison with the land use changes, from the times of Kinloch.

### STUDY AREA

The study area lies between the geographical coordinates of 10°20'-10°48'N & 76°30'-76°55'E, forming part of Anamalai – Palani hill block in the southern Western Ghats. The region falls under administrative boundary of Chittur taluk in Palakkad district, Kerala. The forest zone comes under the Nemmara forest division consisting of two forest ranges, Nelliampathy range (100km<sup>2</sup>) and Kollengode range (60km<sup>2</sup>). Nelliampathies is bordered on the north by the Palghat gap, south by Parambikulam Wildlife Sanctuary, east by Indira Gandhi Wildlife Sanctuary, and west by Chalakkudy forest division.

### METHODOLOGY

The study was conducted for three months between December 2004 and February 2005. Two intensive surveys were carried out between these periods each having durations of five days each, where in about 40 birdwatchers from southern India participated. For the intensive survey seven base camps were selected within Nelliampathies. They are Kaikatty, Karimala, Lower Nelliampathies, Nellikulam peak, Pakuthippalam, Pothumala and Pothundy dam. The base camps were selected in such a way that all the representative habitats of Nelliampathies were covered. At each camp four to six volunteers camped. Prefixed transects radiating from the base camps were followed in the morning (0730hr to 1100hr) and in the afternoon (1430hr to 1800hr). While walking on the transects all the birds encountered were recorded species-wise.

Manuscript 1654; © ZOO; Date of publication 21 May 2007  
Received 04 October 2006; Revised received 31 January 2007;  
Finally accepted 16 March 2007

**Table 1. Consolidated checklist of birds of Nelliampathies, along with the frequency of bird species sightings from different habitats**

Common Name	Scientific name	Localities with sightings								Past records			Present records #			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1. Little Cormorant (28)	<i>Phalacrocorax niger</i> (Vieillot, 1817)			X					X		X		0	0	6	
2. Great Cormorant (26)	<i>Phalacrocorax carbo</i> (Linnaeus, 1758)								X				0	0	0	
3. Little Egret (49)	<i>Egretta garzetta</i> (Linnaeus, 1766)			X					X		X		0	0	3	
4. Large Egret (45-46)	<i>Casmerodius albus</i> (Linnaeus, 1758)			X					X		X		0	0	1	
5. Median Egret (47, 48)	<i>Mesophoyx intermedia</i> (Wagler, 1829)			X					X		X		0	0	0	
6. Cattle Egret (44)	<i>Bubulcus ibis</i> (Linnaeus, 1758)			X					X		X		0	0	3	
7. Indian Pond-Heron (42-42a)	<i>Ardeola grayii</i> (Sykes, 1832)	X		X	X	X			X		X		1	0	9	
8. Black-crowned Night-Heron (52)	<i>Nycticorax nycticorax</i> (Linnaeus, 1758)								X				0	0	0	
9. Cinnamon Bittern	<i>Ixobrychus cinnamomeus</i> (Gmelin, 1789)								X				0	0	0	
10. Jerdon's Baza (125-126)	<i>Aviceda jerdoni</i> (Blyth, 1842)					X					X		1	0	0	
11. Black Baza (127-128a)	<i>Aviceda leuphotes</i> (Dumont, 1820)				X						X		1	0	0	
12. Oriental Honey-Buzzard (129-130)	<i>Pernis ptilorhynchus</i> (Temminck, 1821)					X	X		X		X		0	2	1	
13. Black-shouldered Kite (124)	<i>Elanus caeruleus</i> (Desfontaines, 1789)							X	X	X	X		0	0	2	
14. Black Kite (132-134)	<i>Milvus migrans</i> (Boddaert, 1783)								X	X			0	0	0	
15. Brahminy Kite (135)	<i>Haliastur indus</i> (Boddaert, 1783)	X		X		X			X	X	X		1	0	5	
16. Indian White-backed Vulture (185)	<i>Gyps bengalensis</i> (Gmelin, 1788)									X			0	0	0	
17. Short-toed Snake-Eagle (195)	<i>Circaetus gallicus</i> (Gmelin, 1788)	X									X		0	0	0	
18. *Crested Serpent-Eagle (196-200)	<i>Spilornis cheela</i> (Latham, 1790)	X	X		X	X	X	X	X	X	X		6	1	4	
19. Western Marsh-Harrier (193)	<i>Circus aeruginosus</i> (Linnaeus, 1758)								X				0	0	0	
20. Pallid Harrier	<i>Circus macrourus</i> (S.G. Gmelin, 1770)						X				X		0	2	0	
21. Crested Goshawk (144-146)	<i>Accipiter trivirgatus</i> (Temminck, 1824)				X					X	X		1	0	1	
22. *Shikra (137-140)	<i>Accipiter badius</i> (Gmelin, 1788)								X	X			0	0	0	
23. *Besra Sparrowhawk (149-151)	<i>Accipiter virgatus</i> (Temminck, 1822)		X		X				X	X	X		0	0	0	
24. Common Buzzard (155-156)	<i>Buteo buteo</i> Linnaeus, 1758	X							X		X		0	1	0	
25. Black Eagle (172)	<i>Ictinaetus malayensis</i> (Temminck, 1822)	X	X			X			X	X	X		8	0	1	
26. Booted Eagle (164)	<i>Hieraetus pennatus</i> (Gmelin, 1788)		X		X		X		X		X		1	2	2	
27. Rufous-bellied Eagle (165)	<i>Hieraetus kienerii</i> (E. Geoffroy, 1835)	X	X	X	X	X			X		X		1	0	4	
28. Changeable Hawk-Eagle (160-162)	<i>Spizaetus cirrhatu</i> (Gmelin, 1788)				X	X			X	X	X		1	0	4	
29. Common Kestrel (222-224)	<i>Falco tinnunculus</i> Linnaeus, 1758	X					X	X	X	X	X		3	8	0	
30. Oriental Hobby (214-215)	<i>Falco severus</i> Horsfield, 1821						?			X			0	0	0	
31. Peregrine Falcon (209-211)	<i>Falco peregrinus peregrinator</i>							X		X	X		0	0	1	
32. Grey Francolin (244-246)	<i>Francolinus pondicerianus</i> (Gmelin, 1789)			X					X		X		0	0	0	
33. Jungle Bush-Quail (255-258)	<i>Perdica asiatica</i> (Latham, 1790)						?						0	0	0	
34. Painted Bush-Quail (262-263)	<i>Perdica erythrorhynchos</i> (Sykes, 1832)							X	X	X	X		0	1	0	
35. Red Spurfowl (275-277)	<i>Galloperdix spadicea</i> (Gmelin, 1789)	X	X						X	X	X		3	0	1	
36. Grey Junglefowl (301)	<i>Gallus sonneratii</i> Temminck, 1813	X	X		X	X	X	X	X	X	X		14	2	14	
37. White-breasted Waterhen (343-345)	<i>Amaurornis phoenicurus</i> (Pennant, 1769)	X		X					X		X		0	0	2	
38. Bronze-winged Jacana (359)	<i>Metopidius indicus</i> (Latham, 1790)								X				0	0	0	
39. Little Ringed Plover (379-380)	<i>Charadrius dubius</i> Scopoli, 1786								X				0	0	0	
40. Yellow-wattled Lapwing (370)	<i>Vanellus malabaricus</i> (Boddaert, 1783)			X							X		0	0	2	
41. Red-wattled Lapwing (366-368)	<i>Vanellus indicus</i> (Boddaert, 1783)	X		X					X		X		0	0	6	
42. Eurasian Woodcock (411)	<i>Scolopax rusticola</i> Linnaeus, 1758									X			0	0	0	
43. Common Greenshank (396)	<i>Tringa nebularia</i> (Gunner, 1767)									X			0	0	0	
44. Green Sandpiper (397)	<i>Tringa ochropus</i> Linnaeus, 1758			X					X		X		0	0	0	
45. Common Sandpiper (401)	<i>Actitis hypoleucos</i> Linnaeus, 1758			X					X		X		0	0	0	
46. River Tern (463)	<i>Sterna aurantia</i> J.E. Gray, 1831			X					X		X		0	0	0	
47. Blue Rock Pigeon (516-517)	<i>Columba livia</i> Gmelin, 1789			X					X		X		0	0	1	
48. Nilgiri Wood-Pigeon (521)	<i>Columba elphinstonii</i> (Sykes, 1833)						X	X			X		3	1	0	
49. Spotted Dove (537-540)	<i>Streptopelia chinensis</i> (Scopoli, 1786)	X	X	X				X	X	X	X		1	0	11	
50. Emerald Dove (542-544a)	<i>Chalcophaps indica</i> (Linnaeus, 1758)	X	X		X	X	X	X	X	X	X		15	3	10	
51. Pompadour Green-Pigeon (496-500)	<i>Treron pompadora</i> (Gmelin, 1789)	X	X		X	X		X	X	X	X		15	0	27	
52. Yellow-legged Green-Pigeon (503-505)	<i>Treron phoenicoptera</i> (Latham, 1790)								X				0	0	0	
53. Green Imperial-Pigeon	<i>Ducula aenea</i> (Linnaeus, 1766)								X				0	0	0	
54. Mountain Imperial-Pigeon (510-512)	<i>Ducula badia</i> (Raffles, 1822)	X			X	X	X	X	X	X	X		28	1	40	
55. Indian Hanging-Parrot (566, 567)	<i>Loriculus vernalis</i> (Sparman, 1787)	X	X		X	X	X		X	X	X		4	1	5	
56. Rose-ringed Parakeet (549-550)	<i>Psittacula krameri</i> (Scopoli, 1769)	?		X		X			X		X		4	0	2	
57. Plum-headed Parakeet (557-558)	<i>Psittacula erythrocephala</i> (Linnaeus, 1766)	X	X			X	X	X	X	X	X		6	4	9	
58. Blue-winged Parakeet (564)	<i>Psittacula columboides</i> (Vigors, 1830)	X			X	X	X	X	X	X	X		44	0	103	
59. Red-winged Crested Cuckoo (569)	<i>Clamator coromandus</i> (Linnaeus, 1766)					X		X		X	X		2	0	0	
60. Brainfever Bird (573-574)	<i>Hierococcyx varius</i> (Vahl, 1797)							X	X	X	X		0	0	1	
61. Indian Cuckoo (576)	<i>Cuculus micropterus</i> Gould, 1838					X					X		0	0	1	
62. Banded Bay Cuckoo (582-583)	<i>Cacomantis sonneratii</i> (Latham, 1790)								X				0	0	0	
63. Asian Koel (590-592)	<i>Eudynamis scolopacea</i> (Linnaeus, 1758)								X				0	0	0	
64. *Greater Coucal (600-602)	<i>Centropus sinensis</i> (Stephens, 1815)	X	X	X		X				X	X		1	0	0	
65. Oriental Bay-Owl (609-610)	<i>Phodilus badius</i> (Horsfield, 1821)										X		0	0	0	
66. *Oriental Scops-Owl (616-618b)	<i>Otus sunia</i> (Hodgson, 1836)				X				X				2	0	0	
67. Collared Scops-Owl (619-624)	<i>Otus bakkamoena</i> Pennant, 1769		X		X								X	0	0	
68. Forest Eagle-Owl (628-629)	<i>Bubo nipalensis</i> Hodgson, 1836					X							X	1	0	
69. Brown Fish-Owl (631-632)	<i>Ketupa zeylonensis</i> (Gmelin, 1788)					X							X	1	0	
70. Mottled Wood-Owl (655-657)	<i>Strix ocellata</i> (Lesson, 1839)								X				0	0	0	

Common Name	Scientific name	Localities with sightings								Past records			Present records #		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
71. Brown Wood-Owl (658-660)	<i>Strix leptogrammica</i> Temminck, 1831									X			0	0	0
72. *Jungle Owlet (636-637)	<i>Glaucidium radiatum</i> (Tickell, 1833)	X	X		X	X		X			X		4	0	0
73. Brown Hawk-Owl (642-645)	<i>Ninox scutulata</i> (Raffles, 1822)	X			X	X		X			X		3	0	0
74. Short-eared Owl (664)	<i>Asio flammeus</i> (Pontoppidan, 1763)									X			0	0	0
75. Ceylon Frogmouth (666)	<i>Batrachostomus moniliger</i> Blyth, 1846					X					X		2	0	0
76. Great Eared-Nightjar (668-669)	<i>Eurostopus macrotis</i> (Vigors, 1831)							X			X		1	0	0
77. Indian Jungle Nightjar (670-672a)	<i>Caprimulgus indicus</i> Latham, 1790						X	X			X		2	0	0
78. *Jerdon's Nightjar (676, 677)	<i>Caprimulgus atripennis</i> Jerdon, 1845	?						X					0	0	0
79. Common Indian Nightjar (680-681)	<i>Caprimulgus asiaticus</i> Latham, 1790							X			X		1	0	0
80. Franklin's Nightjar (682)	<i>Caprimulgus affinis</i> Horsfield, 1821					X					X		1	0	0
81. Indian Edible-nest Swiftlet (685)	<i>Collocalia unicolor</i> (Jerdon, 1840)	X	X		X	X		X	X		X		9	0	0
82. White-rumped Needletail-Swift (692)	<i>Zoonavena sylvatica</i> (Tickell, 1846)	X				X			X		X		3	0	0
83. Brown-backed Needletail-Swift (691)	<i>Hirundapus giganteus</i> (Temminck, 1846)							X		X			0	0	0
84. *Asian Palm-Swift (707-708)	<i>Cypsiurus balasensis</i> (J.E. Gray, 1829)			X				X			X		0	0	0
85. Alpine Swift (693-695)	<i>Tachymarpis melba</i> (Linnaeus, 1758)				X			X		X	X		0	0	0
86. House Swift (702-706)	<i>Apus affinis</i> (J.E. Gray, 1830)							X	X	X	X		0	0	2
87. *Crested Tree-Swift (709)	<i>Hemiprocne coronata</i> (Tickell, 1833)	X				X		X	X	X	X		2	0	0
88. Malabar Trogon (710-712)	<i>Harpactes fasciatus</i> (Pennant, 1769)	X	X		X	X		X	X	X	X		8	0	0
89. Small Blue Kingfisher (722-724)	<i>Alcedo atthis</i> (Linnaeus, 1758)	X			X	X		X	X	X	X		1	0	0
90. Stork-billed Kingfisher (730-732)	<i>Halcyon capensis</i> (Linnaeus, 1766)					X		X			X		1	0	0
91. White-breasted Kingfisher (735-738)	<i>Halcyon smyrnensis</i> (Linnaeus, 1758)	X		X	X	X		X			X		4	0	0
92. Lesser Pied Kingfisher (719-720)	<i>Ceryle rudis</i> (Linnaeus, 1758)			X				X			X		0	0	0
93. Blue-bearded Bee-eater (753)	<i>Nyctornis athertoni</i> (Jardine & Selby, 1828)					X					X		2	0	0
94. Small Bee-eater (749-752)	<i>Merops orientalis</i> Latham, 1801			X				X			X		0	0	0
95. Blue-tailed Bee-eater (748)	<i>Merops philippinus</i> Linnaeus, 1766	X								X	X		0	0	0
96. Chestnut-headed Bee-eater (744-745)	<i>Merops leschenaulti</i> Vieillot, 1817	X	X		X	X		X	X	X	X		6	0	0
97. Indian Roller (755-757)	<i>Coracias benghalensis</i> (Linnaeus, 1758)			X				X			X		0	0	0
98. Oriental Broad-billed Roller (758-762)	<i>Eurystomus orientalis</i> (Linnaeus, 1766)				X	X		X	X	X	X		2	0	0
99. Common Hoopoe (763-766)	<i>Upupa epops</i> Linnaeus, 1758	X						X		X	X		1	0	0
100. *Malabar Grey Hornbill (768)	<i>Ocyrceros griseus</i> (Latham, 1790)	X	X		X	X	X			X	X	X	18	3	6
101. Indian Grey Hornbill (767)	<i>Ocyrceros birostris</i> (Scopoli, 1786)							X					0	0	0
102. Malabar Pied Hornbill (775)	<i>Anthraceroceros coronatus</i> (Boddaert, 1783)				X					X	X		1	0	1
103. Great Pied Hornbill (776)	<i>Buceros bicornis</i> Linnaeus, 1758	X			X	X	X	X	X	X	X		12	0	12
104. White-cheeked Barbet (785)	<i>Megalaima viridis</i> (Boddaert, 1783)	X	X		X	X	X	X	X	X	X		60	17	80
105. Crimson-throated Barbet (790-791)	<i>Megalaima rubricapilla</i> (Gmelin, 1788)	X	X		X	X		X	X	X	X		24	6	64
106. Coppersmith Barbet (792)	<i>Megalaima haemacephala</i> (P.L.S. Müller, 1776)					X		X			X		0	0	0
107. Speckled Piculet (798-799)	<i>Picumnus innominatus</i> Burton, 1836							X			X		2	0	0
108. Brown-capped Pygmy Woodpecker (851-854)	<i>Dendrocopos nanus</i> (Vigors, 1832)	X			X	X		X			X		4	0	1
109. Yellow-fronted Pied Woodpecker (847)	<i>Dendrocopos maharattensis</i> (Latham, 1801)												0	0	0
110. Rufous Woodpecker (802-804)	<i>Celeus brachyurus</i> (Vieillot, 1818)				X			X			X		1	0	4
111. *Great Black Woodpecker (830)	<i>Dryocopus javensis</i> (Horsfield, 1821)	X			X	X		X		X	X		7	0	3
112. Small Yellow-naped Woodpecker (814-817)	<i>Picus chlorolophus</i> Vieillot, 1818					X		X			X		1	0	0
113. Common Golden-backed Woodpecker (825-826)	<i>Dinopium javanense</i> (Ljungh, 1797)	X			X	X	X	X	X	X	X		25	0	16
114. Lesser Golden-backed Woodpecker (818-823)	<i>Dinopium benghalense</i> (Linnaeus, 1758)	X	X		X	X	X	X	X	X	X		6	0	7
115. Greater Golden-backed Woodpecker (860-863)	<i>Chrysocolaptes lucidus</i> (Scopoli, 1786)	X	X		X	X	X	X	X		X		8	0	7
116. Heart-spotted Woodpecker (856)	<i>Hemicircus canente</i> (Lesson, 1830)	X			X	X		X	X	X	X		5	0	3
117. Indian Pitta (867)	<i>Pitta brachyura</i> (Linnaeus, 1766)							X		X			0	0	0
118. *Jerdon's Bush-Lark (874)	<i>Mirafra affinis</i> Blyth, 1845							X					0	0	0
119. Ashy-crowned Sparrow-Lark (878)	<i>Eremopterix grisea</i> (Scopoli, 1786)							X					0	0	0
120. Malabar Lark	<i>Galerida malabarica</i> (Scopoli, 1786)									X			0	0	0
121. Dusky Crag-Martin (914)	<i>Hirundo concolor</i> Sykes, 1833	X						X			X		0	0	0
122. Common Swallow (916-918)	<i>Hirundo rustica</i> Linnaeus, 1758	X						X			X		0	0	0
123. House Swallow (919-920)	<i>Hirundo tahitica</i> Gmelin, 1789							X		X			0	0	0
124. Red-rumped Swallow (923-928)	<i>Hirundo daurica</i> Linnaeus, 1771				X	X		X			X		0	0	2
125. Striated Swallow (929)	<i>Hirundo striolata</i> (Schlegel, 1844)									?			0	0	0
126. Forest Wagtail (1874)	<i>Dendronanthus indicus</i> (Gmelin, 1789)	X			X	X				X	X		4	0	1
127. White Wagtail (1885-1890)	<i>Motacilla alba</i> Linnaeus, 1758	X									X		0	0	0
128. Large Pied Wagtail (1891)	<i>Motacilla maderaspatensis</i> Gmelin, 1789	X		X				X			X		0	0	2
129. Yellow Wagtail (1875-1880)	<i>Motacilla flava</i> Linnaeus, 1758									X			0	0	0
130. Grey Wagtail (1884)	<i>Motacilla cinerea</i> Tunstall, 1771	X	X	X	X	X	X	X	X	X	X		17	4	17
131. *Paddyfield Pipit (1858-1860)	<i>Anthus rufulus</i> Vieillot, 1818	X						X		X	X		0	0	0
132. Brown Rock Pipit (1866-1869)	<i>Anthus similis</i> Jerdon, 1840	X									X		0	1	0
133. Oriental Tree Pipit (1852-1853)	<i>Anthus hodgsoni</i> Richmond, 1907							X			X		1	0	0
134. Nilgiri Pipit (1870)	<i>Anthus nilghiriensis</i> Sharpe, 1885				X			X	X		X		1	1	0
135. *Large Cuckoo-Shrike (1072-1075)	<i>Coracina macei</i> (Lesson, 1830)	X						X			X		0	0	1
136. Black-headed Cuckoo-Shrike (1078-1079)	<i>Coracina melanoptera</i> (Rüppell, 1839)					X					X		0	0	0
137. Small Minivet (1090-1095)	<i>Pericrocotus cinnamomeus</i> (Linnaeus, 1766)	X	X			X		X		X	X		6	0	6
138. Scarlet Minivet (1080-1083)	<i>Pericrocotus flammeus</i> (Forster, 1781)	X	X		X	X		X	X	X	X		34	1	16
139. Pied Flycatcher-Shrike (1064-1066)	<i>Hemipus picatus</i> (Sykes, 1832)	X	X		X	X		X	X	X	X		6	0	6
140. Large Woodshrike (1067-1068)	<i>Tephrodornis gularis</i> (Raffles, 1822)	X	X		X	X		X	X	X	X		4	0	3
141. Grey-headed Bulbul (1114)	<i>Pycnonotus priocephalus</i> (Jerdon, 1839)	X									X		1	0	0
142. Black-crested Bulbul (1115-1117)	<i>Pycnonotus melanicterus</i> (Gmelin, 1789)	X			X	X		X			X		15	0	6
143. Red-whiskered Bulbul (1118-1122)	<i>Pycnonotus jocosus</i> (Linnaeus, 1758)	X	X		X	X		X		X	X		36	17	50



Common Name	Scientific name	Localities with sightings								Past records			Present records #		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
144. Red-vented Bulbul (1126-1132)	<i>Pycnonotus cafer</i> (Linnaeus, 1766)	X	X	X				X	X			X	5	0	7
145. Yellow-browed Bulbul (1143-1145)	<i>Iole indica</i> (Jerdon, 1839)	X	X		X	X	X	X	X	X	X		88	10	45
146. *Black Bulbul (1148-1151)	<i>Hypsipetes leucocephalus</i> (P.L.S. Muller, 1776)	X			X	X	X	X	X	X	X		42	13	24
147. Common Iora (1097-1101)	<i>Aegithina tiphia</i> (Linnaeus, 1758)	X	X		X	X	X					X	10	1	1
148. Jerdon's Chloropsis (1107-1108)	<i>Chloropsis cochinchinensis</i> (Gmelin, 1788)	X				X		X	X			X	0	0	3
149. Gold-fronted Chloropsis (1103-1105)	<i>Chloropsis aurifrons</i> (Temminck, 1829)	X	X		X	X		X	X	X	X		12	0	11
150. Asian Fairy-Bluebird (1109, 1110)	<i>Irena puella</i> (Latham, 1790)	X	X		X	X	X			X	X		33	2	41
151. Brown Shrike (949-950a)	<i>Lanius cristatus</i> Linnaeus, 1758	X	X	X	X				X			X	5	0	6
152. Rufous-backed Shrike (946-948)	<i>Lanius schach</i> Linnaeus, 1758									X			0	0	0
153. Blue-headed Rock-Thrush (1723)	<i>Monticola cinclorhynchus</i> (Vigors, 1832)	X			X		X	X	X	X	X		1	1	1
154. Blue Rock-Thrush (1725-1726)	<i>Monticola solitarius</i> (Linnaeus, 1758)									X			0	0	0
155. Malabar Whistling-Thrush (1728)	<i>Myiophonus horsfieldii</i> (Vigors, 1831)	X	X		X	X	X	X	X	X	X		37	4	23
156. Pied Thrush (1731)	<i>Zoothera wardii</i> (Blyth, 1842)									X			0	0	0
157. Orange-headed Thrush (1734)	<i>Zoothera citrina cyanotus</i> (Jardine & Selby, 1828)	X	X				X		X	X	X		5	1	0
158. Scaly Thrush	<i>Zoothera dauma</i> (Latham, 1790)									X			0	0	0
159. Eurasian Blackbird (1751-1757)	<i>Turdus merula</i> Linnaeus, 1758	X						X	X	X	X		1	0	0
160. Indian Blue Robin (1650, 1651)	<i>Luscinia brunnea</i> (Hodgson, 1837)									X			0	0	0
161. Oriental Magpie-Robin (1661-1664)	<i>Copsychus saularis</i> (Linnaeus, 1758)	X	X	X	X	X		X			X		0	0	6
162. Indian Robin (1717-1721)	<i>Saxicoloides fulicata</i> (Linnaeus, 1776)		X	X				X			X		0	0	3
163. Pied Bushchat (1700-1703)	<i>Saxicola caprata</i> (Linnaeus, 1766)	X						X			X		0	0	1
164. *Wynaad Laughingthrush (1287)	<i>Garrulax delesserti</i> (Jerdon, 1839)	X	X		X	X		X		X	X		8	0	4
165. Grey-breasted Laughingthrush (1309-1311)	<i>Garrulax jerdoni</i> Blyth, 1851						X				X		0	4	0
166. Spotted Babbler (1152-1159)	<i>Pellorneum ruficeps</i> Swainson, 1832	X			X	X	X	X	X	X	X		6	2	4
167. *Indian Scimitar-Babbler (1172-1177)	<i>Pomatorhinus horsfieldii</i> Sykes, 1832	X	X		X	X	X	X	X	X	X		20	1	3
168. Rufous-bellied Babbler (1219-1223)	<i>Dumetia hyperythra</i> (Franklin, 1831)							X	X		X		0	0	0
169. Black-headed Babbler (1224-1227)	<i>Rhopocichla atriceps</i> (Jerdon, 1839)	X	X		X	X		X		X	X		17	0	3
170. Indian Rufous Babbler (1259-1260)	<i>Turdoides subrufus</i> (Jerdon, 1839)	X			X	X					X		3	0	1
171. Jungle Babbler (1261-1265)	<i>Turdoides striatus</i> (Dumont, 1823)		X		X	X		X			X		2	0	9
172. White-headed Babbler (1267-1268)	<i>Turdoides affinis</i> (Jerdon, 1847)			X				X			X		0	0	1
173. Quaker Tit-Babbler (1389-1391)	<i>Alcippe poiocephala</i> (Jerdon, 1844)	X	X		X	X	X	X	X		X		28	3	16
174. Streaked Fantail-Warbler (1498-1500a)	<i>Cisticola juncidis</i> (Rafinesque, 1810)							X					0	0	0
175. Franklin's Prinia (1502-1505)	<i>Prinia hodgsonii</i> Blyth, 1844	X					X	X			X		3	3	0
176. Ashy Prinia (1515-1518)	<i>Prinia socialis</i> Sykes, 1832							X	X		X		0	0	1
177. *Plain Prinia (1510-1514)	<i>Prinia inornata</i> Sykes, 1832			X				X			X		0	0	1
178. Blyth's Reed-Warbler (1556)	<i>Acrocephalus dumetorum</i> Blyth, 1849	X	X	X	X	X	X	X			X		9	5	18
179. Thick-billed Warbler (1549)	<i>Acrocephalus aedon</i> (Pallas, 1776)							X					0	0	0
180. Common Tailorbird (1535-1539)	<i>Orthotomus sutorius</i> (Pennant, 1769)	X	X	X		X		X		X	X		3	0	1
181. *Tickell's Warbler (1579)	<i>Phylloscopus affinis</i> (Tickell, 1833)				X			X			X		2	0	0
182. Greenish Leaf-Warbler (1602-1605)	<i>Phylloscopus trochiloides</i> (Sundevall, 1837)	X	X		X	X	X	X	X		X		43	4	42
183. Large-billed Leaf-Warbler (1601)	<i>Phylloscopus magnirostris</i> Blyth, 1843	X	X		X	X	X	X	X		X		31	2	22
184. *Western Crowned Warbler (1606)	<i>Phylloscopus occipitalis</i> (Blyth, 1845)	X			X		X				X		1	4	0
185. Broad-tailed Grass-Warbler (1546)	<i>Schoenicola platyura</i> (Jerdon, 1844)								X				0	0	0
186. Asian Brown Flycatcher (1407)	<i>Muscicapa dauurica</i> Pallas, 1811	X	X		X	X		X	X	X	X		9	0	8
187. Rusty-tailed Flycatcher (1409)	<i>Muscicapa ruficauda</i> Swainson, 1838	X	X							X	X		3	0	0
188. Brown-breasted Flycatcher (1408)	<i>Muscicapa muttui</i> (Layard, 1854)	X	X		X		X		X	X	X		2	2	1
189. Verditer Flycatcher (1445)	<i>Eumyias thalassina</i> (Swainson, 1838)	X			X		X	X		X	X		4	0	5
190. Nilgiri Flycatcher (1446)	<i>Eumyias albicaudata</i> (Jerdon, 1840)				X	X		X		X	X		7	0	1
191. White-bellied Blue-Flycatcher (1435)	<i>Cyornis pallipes</i> (Jerdon, 1840)	X				X					X		3	0	0
192. Blue-throated Flycatcher (1440)	<i>Cyornis rubeculoides</i> (Vigors, 1831)		X					X			X		1	0	0
193. Tickell's Blue-Flycatcher (1442-1443)	<i>Cyornis tickelliae</i> Blyth, 1843		X			X		X			X		1	0	0
194. Grey-headed Flycatcher (1448-1449)	<i>Culicicapa ceylonensis</i> (Swainson, 1820)				X	X		X	X	X	X		20	0	4
195. Asian Paradise-Flycatcher (1460-1464)	<i>Terpsiphone paradisi</i> (Linnaeus, 1758)	X	X		X	X		X		X	X		12	0	5
196. Black-naped Monarch-Flycatcher (1465-1469)	<i>Hypothymis azurea</i> (Boddaert, 1783)	X	X		X	X		X		X	X		10	0	3
197. Great Tit (1790-1797)	<i>Parus major</i> Linnaeus, 1758	X	X		X	X	X	X	X	X	X		3	0	5
198. Black-lored Yellow Tit (1809-1811)	<i>Parus xanthogenys</i> Vigors, 1831				X	X		X	X	X	X		9	0	5
199. Velvet-fronted Nuthatch (1838)	<i>Sitta frontalis</i> Swainson, 1820	X	X		X	X	X	X	X	X	X		20	1	17
200. Thick-billed Flowerpecker (1892-1894)	<i>Dicaeum agile</i> (Tickell, 1833)	X	X					X	X		X		7	0	5
201. Tickell's Flowerpecker (1899-1900)	<i>Dicaeum erythrorhynchos</i> (Latham, 1790)						X		X		X		2	3	9
202. Plain Flowerpecker (1901-1903)	<i>Dicaeum concolor</i> Jerdon, 1840	X	X		X	X	X	X		X	X		11	1	9
203. Purple-rumped Sunbird (1907-1908)	<i>Nectarinia zeylonica</i> (Linnaeus, 1766)			X	?		X	X	X	X	X		6	0	1
204. Small Sunbird (1909)	<i>Nectarinia minima</i> (Sykes, 1832)	X	X		X	X	X	X	X		X		47	6	33
205. Purple Sunbird (1916-1918)	<i>Nectarinia asiatica</i> (Latham, 1790)	X	X				X		X		X		5	0	6
206. Loten's Sunbird (1911-1912)	<i>Nectarinia lotenia</i> (Linnaeus, 1766)	X	X		X	X		X		X	X		0	0	2
207. Little Spiderhunter (1931)	<i>Arachnothera longirostra</i> (Latham, 1790)	X			X	X	X			X	X		9	0	8
208. Oriental White-eye (1933-1936)	<i>Zosterops palpebrosus</i> (Temminck, 1824)	X			X	X	X		X	X	X		28	5	6
209. Common Rosefinch (2010-2013)	<i>Carpodacus erythrinus</i> (Pallas, 1770)	X			X		X	X		X	X		1	0	3
210. White-rumped Munia (1967-1970)	<i>Lonchura striata</i> (Linnaeus, 1766)							X					0	0	0
211. Black-throated Munia (1971-1973)	<i>Lonchura kelaarti</i> (Jerdon, 1863)	X			X	X		X	X	X	X		3	0	1
212. House Sparrow (1938-1939a)	<i>Passer domesticus</i> (Linnaeus, 1758)									X			0	0	0
213. Yellow-throated Sparrow (1948-1949)	<i>Petronia xanthocollis</i> (Burton, 1838)							X					1	0	0
214. Baya Weaver (1957-1959)	<i>Ploceus philippinus</i> (Linnaeus, 1766)							X					0	0	0
215. Grey-headed Starling (987-989)	<i>Sturnus malabaricus</i> (Gmelin, 1789)	X		X	X	X		X			X		0	0	8
216. Grey-headed Starling (988)	<i>Sturnus malabaricus blythi</i> (Jerdon, 1844)	X		X	X	X		X			X		1	0	16

Common Name	Scientific name	Localities with sightings								Past records			Present records #		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
217. Brahminy Starling (994)	<i>Sturnus pagodarum</i> (Gmelin, 1789)			X								X	0	0	1
218. Common Myna (1006-1007)	<i>Acridotheres tristis</i> (Linnaeus, 1766)	X		X	X			X	X			X	0	0	12
219. Jungle Myna (1009-1011)	<i>Acridotheres fuscus</i> (Wagler, 1827)					X						X	0	0	0
220. *Southern Hill-Myna (1016)	<i>Gracula indica</i> (Cuvier, 1829)	X			X	X	X	X	X	X		X	54	0	92
221. Eurasian Golden Oriole (952-953)	<i>Oriolus oriolus</i> (Linnaeus, 1758)	X	X		X	X	X	X	X	X		X	11	2	27
222. *Black-naped Oriole (954, 956-957)	<i>Oriolus chinensis</i> Linnaeus, 1766			X								X	0	0	0
223. Black-headed Oriole (958-960a)	<i>Oriolus xanthornus</i> (Linnaeus, 1758)			X				X				X	3	0	0
224. *Black Drongo (962-964)	<i>Dicrurus macrocercus</i> Vieillot, 1817			X				X				X	0	0	1
225. Ashy Drongo (965-966b)	<i>Dicrurus leucophaeus</i> Vieillot, 1817	X	X		X	X	X	X	X	X		X	38	0	62
226. Bronzed Drongo (971)	<i>Dicrurus aeneus</i> Vieillot, 1817	X	X		X	X		X		X		X	6	0	12
227. Spangled Drongo (973)	<i>Dicrurus hottentottus</i> (Linnaeus, 1766)					X						X	2	0	0
228. Greater Racket-tailed Drongo (976-981)	<i>Dicrurus paradiseus</i> (Linnaeus, 1766)	X	X		X	X		X		X		X	25	1	28
229. Ashy Woodswallow (982)	<i>Artamus fuscus</i> Vieillot, 1817			X				X				X	0	0	0
230. Indian Treepie (1030a-1034)	<i>Dendrocitta vagabunda</i> (Latham, 1790)		X					X		X		X	2	0	1
231. White-bellied Treepie (1036)	<i>Dendrocitta leucogastra</i> Gould, 1833	X			X	X		X	X	X		X	22	0	11
232. House Crow (1048-1051)	<i>Corvus splendens</i> Vieillot, 1817			X		X		X				X	0	0	6
233. Jungle Crow (1054-1057)	<i>Corvus macrorhynchos</i> Wagler, 1827				X	X		X	X			X	2	0	6

**Legend:** 1 - Kaikatty; 2 - Lower Nelliampathies; 3 - Pothundy Dam; 4 - Pothumala; 5 - Pakuthipalam; 6 - Nellikulam peak; 7 - Karimala; 8 - all sites together; 9 - J. Praveen *pers. observ.* between 1996 & 2003; 10 - Kinloch (1921a,b,c & 1923 a & b); 11 - other published records; 12 - evergreen and moist deciduous forests; 13 - shola forests; 14 - plantation & reservoir; # - Present records with frequency of sightings from different habits  
Taxonomy and nomenclature follow Manakadan & Pittie (2001)

Apart from this the number of individuals per species also was counted. This was continued for first two hours and then only those species that were seen on that transect, on that day alone were recorded.

All the birds opportunistically sighted/heard were recorded separately. This information was mainly for the preparation of the checklist. The birds were identified using binoculars (10x50 or 8x40) and field guides of Ali & Ripley (1987); Grimmett *et al.* (1998); Kazmierczak (2000). The data thus collected were recorded in to the prescribed data sheet. Apart from the checklist the frequency of sighting of the birds in different habitats, such as the birds of the forests (evergreen and moist deciduous), birds of the *shola* forests and the birds of the plantations (cardamom, coffee, tea and orange), were also worked out and the results are presented.

## RESULTS

The present study of the avifauna of the Nelliampathy hills reported a total checklist of 197 species belonging to 50 families. Thus the total checklist of birds from Nelliampathy hills comes to 233 species in 64 families (Table 1). Also given in the Table 1 is the frequency of bird sightings from different major habitats at Nelliampathies. The earlier bird records from Nelliampathies are also given in the Table.

The plantations recorded higher number of species when compared to the shola forests. Daniels (1989) & Daniels *et al.* (1990) also observed greater bird species diversity in secondary forest in Uttara Kannada district, Western Ghats. The high altitude areas are known to support fewer number of bird species when compared to the lower altitude areas. Studies on the birds of neotropics (Stotz *et al.*, 1996) had shown that a plateau in species number between 500-1000m, then there is a decline in species richness as the altitude increases at the rate of approximately 5% with every 100m gain in elevation from 1000-3000m. This further explains the lower species richness observed in the present study in the shola forest at

higher reaches in Nelliampathies. Though the plantations recorded higher number of species than the natural forests, the individual bird species frequency analysis shows that the keystone indicator species prefer natural habitats over plantations.

Seven Red List book species (after Birdlife International, 2001) (Table 2) were recorded from Nelliampathies, while 13 species endemic to Western Ghats (after Stattersfield *et al.* 1998), (Table 3) were also noted. It is interesting to note that five out of the seven threatened species of birds recorded from Nelliampathies were absent in the plantations. In the case of endemic species of birds six species of Western Ghats endemics reported from the Nelliampathies could not be sighted from the plantations.

## Significant observations

The following are the significant observations during the study.

**Jerdon's Baza (*Aviceda jerdoni*):** A single bird was seen at Pakuthippalam on 28 November 2003 during the pilot survey by Jafer Palot. Considered extremely rare in the Western Ghats, the species was not recorded by A.P. Kinloch during his studies in Nelliampathies.

**Black Baza (*Aviceda leuphotes*):** A single bird recorded from Pothumala on 28 December 2003 by P.O. Nameer and C. Sashikumar.

**Short-toed Snake-Eagle (*Circaetus gallicus*):** A single bird seen near Kaikatty by C. Sashikumar and P.O. Nameer during the pilot survey.

**Nilgiri Wood-Pigeon (*Columba elphinstonii*):** This endemic pigeon was regularly observed at Karimala during the pilot survey and also during the intensive survey period. A single bird was also recorded near Nellikkulam Peak during the pilot survey.

**Red-winged Crested Cuckoo (*Clamator coromandus*):** Two sightings of this cuckoo. One bird was seen at Pakuthippalam on 28 December 2003 by K.G. Raghu and one sighting from

**Table 2. The frequency of occurrence of threatened species of birds in natural forest and plantations at Nelliampathies, southern Western Ghats**

No. Species	IUCN Category	Natural Forest Frequency	Plantations
1. Great Pied Hornbill	Near Threatened	26	16
2. Nilgiri Flycatcher	Near Threatened	7	2
3. Nilgiri Wood-Pigeon	Vulnerable	4	0
4. Grey-breasted Laughingthrush	Near Threatened	4	0
5. Malabar Pied Hornbill	Near Threatened	3	0
6. Nilgiri Pipit	Near Threatened	3	0
7. Pallid Harrier	Near Threatened	1	0

**Table 3. The frequency of occurrence of Western Ghats endemic species of birds in natural forest and plantations at Nelliampathies, southern Western Ghats**

No. Species	Natural forest Frequency	Plantations
1. Blue-winged Parakeet	103	257
2. Small Sunbird	89	56
3. White-bellied Treepie	37	10
4. Malabar Grey Hornbill	34	9
5. Wynaad Laughingthrush	30	10
6. Rufous Babbler	8	6
7. Nilgiri Flycatcher	7	2
8. Nilgiri Wood-Pigeon	4	0
9. Grey-breasted Laughingthrush	4	0
10. White-bellied Blue Flycatcher	4	0
11. Grey-headed Bulbul	3	0
12. Nilgiri Pipit	3	0

Karimala on 11 November 2004 by P.O. Nameer and E. Kunhikrishnan.

**Ceylon Frogmouth (*Batrachostomus moniliger*):** The bird was not recorded from any locality during the pilot survey period but two birds responded to tape recorded calls played by J. Praveen and P.P. Sreenivasan at Pakuthippalam during the intensive study phase. This species was not reported by A.P. Kinloch but probably got missed out because of its secretive diurnal habits.

**Great-eared Nightjar (*Eurostopodus macrotis*):** Not recorded from any of the localities except from Karimala where its calls were noted by Dipu Karuthedathu during the pilot survey period. A.P. Kinloch did not come across this bird in Nelliampathies during his stay.

**Oriental Broad-billed Roller (*Eurystomus orientalis*):** The bird was observed at Pakuthippalam during the pilot survey and intensive survey periods. It has been regularly recorded from here since 1996 (J. Praveen, pers. obser.; L. Namassivayan, pers. comm.; Bashir, pers. comm.).

**Malabar Pied Hornbill (*Anthraceroceros coronatus*):** Two birds were observed in Pothumala on 27 and 28 December 2003 by P.O. Nameer & C. Sashikumar near a coffee plantation. The bird is decidedly rare everywhere in Kerala and Pothumala adjoins the Vazhachal forests on the west, which is considered as one of the strongholds for this species. Kinloch (1921b,c; 1923a,b) noted this species as common in Nelliampathies but this is no longer true.

**Great Pied Hornbill (*Buceros bicornis*):** This bird got recorded from all the base camps during all visits.

Nelliampathies together with Parambikulam Wildlife Sanctuary houses one of the most viable populations of Great Hornbill in the entire Western Ghats.

**Speckled Piculet (*Picumnus innominatus*):** Two sightings of this bird from Karimala during the pilot survey period by Dipu Karuthedathu and P.P. Sreenivasan.

**Great Black Woodpecker (*Dryocopus javensis*):** Recorded regularly from the forests of Pakuthippalam, Pothumala and Kaikatty.

**Grey-breasted Laughingthrush (*Garrulax jerdoni fairbanki*):** P.K. Ravindran sight recorded this species on three occasions in a shola near Nellikkulam Peak (c. 1500m) on 28 December 2003 during the pilot survey. P.K. Ravindran & J. Praveen recorded the bird calling from a shola once near Minnampara Peak (c. 1300m) on 12 November 2004 during an intensive study survey. Subspecies identification (of the birds seen near Nellikkulam Peak) is certain as of race *fairbanki*, observers clearly noted the lack of black chin and the well-defined eye brow. This taxon was not observed by A.P. Kinloch (1921b,c; 1923a,b) during his studies in Nelliampathies. The northern most range of this subspecies until now was considered as Palani Hills. Hence, the range extension of this species, though not unexpected, is of interest. Rasmussen & Anderton (2005) have elevated it into a species endemic to Kerala called the Kerala Laughingthrush *Trochaloxypterus fairbanki*.

**Broad-tailed Grass-Warbler (*Schoenicola platyura*):** The species was neither observed during the pilot study nor during the intensive study phase probably due to its secretive habits during non-breeding season. However, J. Praveen observed five individuals flitting among the grass near Nellikkulam peak in May 2003. One individual was observed delivering a "lark-like" song while perched on a rock indicating the birds were possibly breeding in the neighborhood. This warbler was not recorded by A.P. Kinloch nor by any other person from this range and hence remains the only record for Nelliampathies.

**Nilgiri Pipit (*Anthus nilghiriensis*):** Recorded from the grassy peaks of Nellikkulam and Pothumala during the pilot survey. C. Sashikumar noted that the birds seen at Pothumala had nesting material in its beak and hence must possibly be breeding. A.P. Kinloch has seen this bird only in the "Lily downs of the Cochin Nelliampathies".

**Brown Rock Pipit (*Anthus similis travancoriensis*):** This is the first record of this species from Nelliampathies. Two birds were seen on a rocky barren hill on the northern tip of the range near Kaikatty by J. Praveen & Prasanth Narayanan. Subspecies identification is uncertain as no specimen capture was done but the birds were similar to the ones seen in Ashambu Hills. As Nelliampathies lies south of Palghat gap, it is expected that the subspecies found here would be *travancoriensis*. Hence, it is a range extension for this subspecies which is known only up to Palani Hills, south of Palghat gap (Ali & Ripley, 1984).

**Oriental Tree Pipit (*Anthus hodgsoni*):** One bird seen at Karimala on 29 December 2003 at Karimala by Dipu Karuthedathu and P.P. Sreenivasan. A rare winter visitor to Kerala.



**Table 4. Birds recorded in earlier studies, but not recorded from Nelliampathies in the present study**

Species	
1. Indian White-backed Vulture ( <i>Gyps bengalensis</i> )	
2. Oriental Hobby ( <i>Falco severus</i> )	
3. Common Greenshank ( <i>Tringa nebularia</i> )	
4. Eurasian Woodcock ( <i>Scolopax rusticola</i> )	
5. Yellow-legged Green-Pigeon ( <i>Treron phoenicoptera</i> )	
6. Green Imperial-Pigeon ( <i>Ducula aenea</i> )	
7. Brown Wood-Owl ( <i>Strix leptogrammica</i> )	
8. Short-eared Owl ( <i>Asio flammeus</i> )	
9. Oriental Bay-Owl ( <i>Phodilus badius ripleyi</i> )	
10. Malabar Lark ( <i>Galerida malabarica</i> )	
11. Striated Swallow ( <i>Hirundo striolata</i> )	
12. Rufous-backed Shrike ( <i>Lanius schach</i> )	
13. Blue Rock-Thrush ( <i>Monticola solitarius</i> )	
14. Indian Blue Robin ( <i>Luscinia brunnea</i> )	
15. Pied Thrush ( <i>Zoothera wardii</i> )	
16. Scaly Thrush ( <i>Zoothera dauma</i> )	

Birds that were not recorded from Nelliampathies during the present study are listed in Table 4. These birds recorded by A.P. Kinloch or other workers could not be located during the present study. At least some of these birds could have become 'locally extinct' from Nelliampathies.

It is also worth mentioning that one of the landmark discoveries in the ornithology of Western Ghats, the discovery of a new subspecies of Oriental Bay Owl (*Phodilus badius ripleyi*) was made from Periashola in the southern slopes of Nelliampathies (Hussain & Khan, 1977). Rasmussen & Anderton (2005) place this subspecies as endemic species to southern Western Ghats and Sri Lanka calling it Ceylon Bay Owl *Phodilus assimilis*. However, we did not come across this bird though we tried playback of tape-recorded calls in 'ideal' habitats. The Striated Swallow *Hirundo striolata* record by Kinloch (1921c) is a likely misidentification as the species is known to occur only in northeastern India. It is likely that the taxon he referred to was one of the migrant races of Red-rumped Swallow *Hirundo daurica*.

## CONCLUSION

Nelliampathies, taking into account its ornithological significance, has been identified as one of the Important Bird Areas of India (Islam & Rahmani, 2003). The remaining natural patches of Nelliampathies, should be added to the adjoining Parambikulam Wildlife Sanctuary and Chalakudy reserve forests, together which could make it into a biodiversity zone, exclusively for tropical biodiversity research.

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## ACKNOWLEDGEMENTS

We would like to acknowledge the Oriental Bird Club, UK for sanctioning the project under the "OBC Small (Conservation) Grant". OBC through their "Small (Conservation) Grant" programme has been contributing substantially to the improvement of knowledge of avifauna of the Oriental region. We thankfully acknowledge the support extended by the officers of the Kerala State Forest Department, Kerala Forest Development Corporation and Kerala State Electricity Board, former for granting permission of the study and latter for the logistic support. Many thanks to all the participants of the pilot survey and the intensive survey for their many hours in the field without which we would not have been able to generate this data. We would like to specially thank L. Namassivayan, C. Sashikumar, Jafer Palot, K.G. Raghu, E. Kunhikrishnan, Sathyan Meppiyaur, P.K. Ravindran and P.P. Sreenivasan for having lead individual teams on different transects, contributing extensively in preparing an authentic checklist after the survey and reviewing earlier drafts of this manuscript. We also thank the unknown reviewers for offering very useful comments on the earlier draft of the manuscript and there by helping to improve the quality of the paper. The second author would like to thank the authorities of Kerala Agricultural University and College of Forestry for their support.

