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## The White-tailed Kingfisher

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It is no light thing to say of any Australian bird that it is one of the most fascinating avian forms in the whole continent; yet that tribute is certainly merited by the beautiful creature known variously as the White-tailed, Silver-tailed, and Racquet-tailed Kingfisher, or Kinghunter, the *Tanysiptera sylvia* (long-tailed woodland bird) of ornithologists and the "Tchewal-tchewal" of certain aborigines. Brilliant plumage makes the species distinctive even among Kingfishers, and to this may be added a group of problems that causes the White-tailed Kingfisher to be one of the outstanding puzzles associated with Australian ornithology.

What, to begin with, is the purpose of that long tail? Has it any relevance to the humour of the bird in favouring tropic jungles and boring into termites' mounds for nesting purposes? And why is the species migratory while other members of the genus are apparently sedentary? Where does it go after leaving Australia in the autumn? Are there two lines of migration, one to and from Cape York and the other along the old land-line indicated by the Great Barrier Reef; and if so how was the curious division brought about and why is it maintained? These are a group of puzzles that can only be suggested at the moment; solutions must await the coming of a worker who will have the opportunity and disposition to study the attractive riddle of inter-tropical migration.

All we know concerning the White-tailed Kingfisher and its immediate relatives may be told in brief space. They comprise a distinct group of some twelve species that are confined to New Guinea, adjacent islands, and north-eastern Australia; all are brilliantly coloured (a species in New Guinea is red and blue), and all are distinguished from other Kingfishers by having the two middle tail-feathers greatly lengthened and very narrowly webbed, but terminated by a spoon-shaped enlargement. Alfred Russel Wal-



White-tailed Kingfishers  
(*Tanysiptera sylvia*)

Neville W. Cayley, pinx.

lace saw a good deal of these birds during his island wanderings, and he gives, in *The Malay Archipelago*, a figure of the *Tanysiptera nais* of Amboyna, which, fully seventeen inches long, is one of the largest and most handsome of the group. Wallace observes, incidentally, that these birds "belong to that division of the family termed Kinghunters, living chiefly on insects and small land-molluscs, which they dart down upon and pick up from the ground, just as a Kingfisher picks a fish out of the water".

The Australian species was described by John Gould in 1850 from specimens secured at Cape York by the assiduous John Macgillivray, who met and admired many of the pretty birds in that region during late spring. Macgillivray remarked on the bright plumage, rapid flight, and sharp voice; he also noted that the species frequented dense brushes and bred in holes dug by itself in termites' mounds, and he hinted that it might be found also to inhabit New Guinea.

Later observers gave general support to Macgillivray's notes, adding that the nests are always made in the *inhabited* mounds of termites (either on the ground or in trees), that three or four eggs are laid, that the tails vary in length but are usually about seven inches (total length of the bird, twelve inches), that the tails of the females are much abraded during the nesting season, that the species is entirely insectivorous, and that the Australian range of the bird is from Cape York to Cardwell, embracing a strip of coastal jungle perhaps 600 miles in depth.

That the species is a confirmed migrant is also agreed. Definite evidence indicates that it reaches Cape York during October-November and leaves in March, although, according to H. G. Barnard, odd birds may be seen during April. But whither does it go from Australia? No one seems to know. A. J. North speculated on the point without reaching any precise conclusion. So did Gregory Mathews. Both were animated by the belief that the species does not occur in New Guinea, Mathews writing down the bird occurring in the south-east of that island as a good (and presumably sedentary) sub-species, *T.s. salvadoriana*. On the other hand, however, Kendall Broadbent states, in a marginal note in his copy of Gould's *Handbook* (now in my possession) that he has noted *T. sylvia* on the mountains of New Guinea. Possibly, then, the species does actually adjourn from Australia to New Guinea, but has escaped general observation in the north because of the season and the altitude of its winter quarters.

In any case, what need is there for the species to migrate at all? The same question applies to the Nutmeg Pigeon, the Shining Starling, and perhaps some few other species, but it applies with special force in the case of an insectivor-

ous, ground-feeding bird, and one, moreover, that is handicapped by mediocre wings and a long tail. Is it that the Kinghunters are blindly swayed by an irresistible impulse born of the days when their ancestors moved up and down a land-line that is now broken by Torres Strait? Whatever be the cause, it is certainly no mean feat for birds such as these to negotiate twice annually the eighty miles or so of water lying between Australia and New Guinea. Small wonder that many of them fall by the way. H. G. Barnard, when collecting at Cape York in 1896-7, saw White-tailed Kingfishers arriving in large numbers during October-November, and records that members of pearling fleets told him that when the birds grow tired of battling with winds they fly close to the water and get wet with spray, with the result that hundreds are drowned. Broadbent, too, has recorded that White-tailed Kingfishers were seen in hundreds at Somerset on a morning in October, and all were so enfeebled by their flight that they simply refused to fly out of men's reach. Incidentally, Broadbent observes that the birds were seen in the early morning and that not one was there on the previous day—a note that suggests the remarkable point that these otherwise individualistic birds flock during migration and fly at night.

The suggestion that there are two lines of migration among the White-tailed Kinghunters was made by Gregory Mathews, who found certain minor differences in plumage among the southern (Tully River) birds, and was toying with the idea of creating a sub-species, even among these migrants, when (he says) Dr. W. MacGillivray bore out his suspicion by stating that the southernmost birds did not pass through Cape York but followed the old land-line represented by the Barrier Reef. Divisions of the kind have been recorded among certain birds in other countries, but this appears to be the only Australian example noted, and it is one that merits closer study, both from the ornithological and the zoo-geographical viewpoints.

Finally, what is to be said as to the purpose of the long tail, occurring in both sexes of *Tanysiptera sylvia*? No answer to this question is essayed here; I am content to remark on the striking coincidence that, in addition to the White-tailed Kingfisher, such long-tailed birds as *Merops ornatus* and the Paradise and Golden-shouldered Parrots burrow into the ground or termites' mounds for nesting purposes.

Specimens figured are:—

Adult male, No. O17814, Cape York, Queensland. Collected by Thorpe, 1866-7.

Adult female, No. O.28871, Riverstone, Cairns, North Queensland. Collected by Thorpe, 23/11/12. "The Grant Collection."

Both in the Australian Museum, Sydney.