

Fig. 1. Comparison of right coracoids of *Tyto* alba, a and d, and "*Lechusa stirtoni*," b and c (a and b are ventral aspect, c and d are dorsal aspect). Scale equals 1 cm.

Miller's statement (p. 620) that the pectoralis tertius muscle may have been attached farther out on an expanded process and that the intermuscular line out-swings for this reason is quite right. As the shape of the expanded sterno-coracoidal process varies, the position and amount of out-swing of the intermuscular line also varies. *Lechusa stirtoni* Miller 1956 therefore becomes a junior subjective synonym of *Tyto alba* (Scopoli) 1769.

Most pioneers of avian paleontology were at best ill-trained in geology and the processes of fossilization. Furthermore, most collections of bird specimens were either inadequate for sufficient comparative study or inaccessible to the researcher. For these reasons the error by Miller is understandable.

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LITERATURE CITED

MILLER, L. 1956. A collection of bird remains from the Pliocene of San Diego, California. Pp. 615– 621 in Proc. California Acad. Sci., Vol. 28, No. 16.

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Evidence for Wintering and Resident Populations of Swainson's Flycatcher (Myiarchus swainsoni) in Northern Suriname

Wesley E. Lanyon

American Museum of Natural History, New York, New York 10024 USA

Zimmer (1938: 408) was the first to demonstrate that the nominate subspecies of Swainson's Flycatcher (Myiarchus s. swainsoni) of southeastern South America winters in northern South America. He based his demonstration upon specimens known to him from Guyana, Venezuela, and Colombia. Junge and Mees (1958: 106) later extended the known wintering range for these transequatorial migrants to include the island of Trinidad. The first specimens of Swainson's Flycatcher for Suriname were collected by Haverschmidt (1968: 313, 1972: 52) and assigned by him to the nominate race, which was quite understandable considering the proximity of the Guyanan locality and the extreme difficulty with which one identifies specimens of this and other species in the genus. Subsequently, I broadened the known range of wintering (or migrant?) individuals to include northern Brazil as well, but I could not agree with Haverschmidt's conclusion that his northern Suriname specimens represented a wintering population (Lanyon 1978: 531).

Mees (1968: 104) took an important series of M. swainsoni in extreme southern Suriname, including a fledgling still being fed by its parents, which was the first indication of a resident population of this species in the country. For reasons explained in detail elsewhere (Lanyon 1978: 531) I consider Mees' specimens to be morphological intergrades between the resident population to the northwest, in southern Venezuela and western Guyana (*M. swainsoni phaeonotus*), and the resident population to the southeast, in central eastern Brazil (*M. swainsoni pel-zelni*).

The assignment of Haverschmidt's specimens from northern Suriname either to this intermediate resident population, as established by Mees' specimens, or to wintering M. s. swainsoni from southern Brazil and Uruguay is difficult on the basis of plumage coloration alone, for this is one of those cases that gives taxonomists nightmares—one subspecies (nominate swainsoni) that is virtually indistinguishable in its plumage coloration from the intergrades between two other subspecies (phaeonotus and pelzelni). But one of Haverschmidt's birds had been collected on 5 January, when nominate swainsoni is breeding in southeastern South America. A second specimen, taken in mid-September, was in the middle of remige molt. Wintering swainsoni complete their wing molt on the wintering grounds, but by late August. These observations suggested that these specimens, at least, had been taken from a resident population of M. swainsoni in northern Suriname.



Fig. 1. Swainson's Flycatcher (*Myiarchus swainsoni*) with nesting material (shed reptilian skin) is perched just above entrance (white arrow) to first nest known for Suriname. Photograph taken with a 500-mm lens on 9 September 1981, near Powakka, Suriname.

The test of this hypothesis came with my location of several pairs near Zanderij in late December 1970. These birds had already bred and were completing their prebasic (postnuptial) body molt. Though they proved the presence of resident Swainson's Flycatchers in northern Suriname, they shed no further light on the question of whether or not the nominate subspecies winters in the country.

On 2 August 1981 I collected a silent Swainson's Flycatcher (AMNH 11919) several kilometers east of Powakka, Suriname, about 50 km south of Paramaribo. It was an adult female (ovary not enlarged) with extensive body molt. The first six primaries in each wing were fresh but without sheaths, the seventh primaries were still sheathed and only two-thirds normal length, while the outer two primaries were worn. Most of the rectrices were fresh but still sheathed and short of normal length. Resident Swainson's Flycatchers at the same locality were in somewhat worn plumage (but not in molt) and were very vocal, and at least one male was giving dawn song, suggesting the onset of breeding. From my previous study I knew that all specimens of nominate swainsoni taken on the wintering grounds during June and July, and most of those taken during August, show active molt of the flight feathers and that the subspecies arrives on the breeding grounds in northeastern Argentina in early September and in Uruguay in early October (Lanyon 1978: 504). I have no hesitancy in identifying my silent, molting bird as a wintering specimen of nominate swainsoni, thus establishing unequivocally and for the first time that Suriname should be included within the wintering range of that taxon.

During my first four visits to Suriname (1970-1981), I found Swainson's Flycatchers at a number of localities throughout the sandy savannas in the north, though less commonly than the sympatric Short-crested Flycatcher (Myiarchus f. ferox). Though my records were for the months of September through December, I had been unable to establish breeding. It was reassuring, therefore, when I discovered a nest of Swainson's Flycatcher near Powakka, Suriname on 8 September 1981. The nest was under construction for the entire period that I was on the study area (8-20 September) and was located in a deep recess formed by the splintered end of a large log that had been felled by lumbermen years before but not taken to the mill (Fig. 1). The opening of the nest cavity was only 1 m aboveground. The nest lining was typically myiarchine in that it included quantities of fur, feathers, and shed reptilian skin, in addition to the usual vegetable fibers. No eggs had been laid when I left the study area on 20 September. Identification of the nesting pair to species was confirmed through analysis of tape recordings of vocal characters and of wing and tail measurements and wing formulae determined after netting both birds in response to playback. Myiarchus f. ferox and Rhytipterna immunda were breeding at the same locality.

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LITERATURE CITED

- HAVERSCHMIDT, F. 1968. Birds of Surinam. Edinburgh and London, Oliver and Boyd, Ltd.
- 1972. Bird records from Surinam. Bull. Brit. Ornithol. Club 92: 49-53.
- JUNGE, G. C. A., & G. F. MEES. 1958. The avifauna of Trinidad and Tobago. Zool. Verhandel., Leiden 37: 1-172.
- LANYON, W. E. 1978. Revision of the *Myiarchus* flycatchers of South America. Bull. Amer. Mus. Nat. Hist. 161: 427–628.
- MEES, G. F. 1968. Enige voor de avifauna van Suriname. Nieuwe vogelsoorten. Gerfaut 58: 101– 107.
- ZIMMER, J. 1938. Notes on migrations of South American birds. Auk 55: 405-410.

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