

INTRODUCTIONS OR NATURAL COLONISTS ?

Historical confusion in the case of *Foudia madagascariensis* and *Astrilda astrild*

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Of the 19 breeding land bird species of the granitic Seychelles islands 6 are generally assumed to be introduced. The dates of the introductions of the barn owl (*Tyto alba*) and the Indian house crow (*Corvus splendens*) are known (1951 and 1977 respectively). Other introductions are undocumented - With a lack of thorough surveys prior to the first documented records of the other four species, the dates of assumed introductions are uncertain. In two cases it is possible that the colonisations of the islands may have been natural.

The Madagascar fody (*Foudia madagascariensis*) was assumed to have been introduced in 1879. The date attributed by J.H. Crook to A.A. Fauvel and based on a personal comment by P. Lousteau-Lalanne. This reference, in turn, is based on a comment made to R.E. Moreau in 1957 by the then Director of Agriculture, A. Jefferies. When questioned recently about this statement, Jefferies was unable to substantiate it (personal comment J. Gerlach). In any case Newton had recorded *Foudia madagascariensis* on Mahé in 1866 - 13 years prior to this supposed introduction. This record therefore invalidates Fauvel's date.

The earliest possible reference to a bird similar to the Madagascar fody was described by the Marion Dufresne expedition in 1768, two years prior to the first settlement of St. Anne. Dufresne says "J'ai aussi trouvé un oiseau qui a le plumage du corps et les ailes comme le linot, couleur brun et café, la tête et la gorge rouge cramoisi, le bec et les pattes noires." (A bird with the body and wing plumage brown and coffee-coloured like a linnet, the head and breast crimson, beak and legs black). This was on 19th September 1768 when the male *Foudia madagascariensis* would be expected to be moulting into breeding plumage.

The presence of a red-headed fody-like bird in the islands prior to human settlement raises the possibility that *Foudia madagascariensis* may have been a natural colonist. If this first record were close to the date of the colonisation and only 250 years ago, no significant morphological difference between the Seychelles population and the parent stock would be detectable. The alteration of the environment by man clearing land for habitation and agriculture would have directly benefitted the fody with its preference for lower coastal areas of semi-open terrain. With the widespread distribution of this species throughout the western Indian Ocean, it would be difficult to separate the different populations genetically. Adaptive radiation may be prevented by periodic colonisations from the parental population undermining the process.

The second bird for which early records seem to contradict the generally held

assumption of its being an introduced species, is the common waxbill (*Astrilda astrild*). The apparently weak flight and the lack of genetic drift is thought to support the case for introduction, but this species occurs naturally throughout sub-Saharan Africa, as well as on oceanic islands like St. Helena. Small populations have been recorded in Madagascar where Langrand (1990) presumed them to be introduced. They also occur in Réunion and Mauritius where they are known by the same Creole name (Bengali) as in Seychelles.

In the very early years after St. Anne was settled and the "Etablissement" was begun on Mahé itself, the settlers began to grow crops for themselves and to provision passing ships. It is not clear what crops are referred to, but presumably some form of seed crop like millet, was planted. In 1789 the settlers had been in place for a mere 19 years when Malavois, on returning to Mauritius, reported to General Decaen that during his period in Seychelles "ces memes îles sont très peuples d'oiseaux de terre et de mer; parmi ceux de terre, les perroquets et les bengalis font beaucoup de tort aux recoltes", (the parrots and bengalis (waxbills) did great damage to the crops) (Fauvel 1909).

There are two possibilities for the explanation of this record. Firstly, that waxbills were so numerous that they could cause "great damage to the crops" because there was already a substantial population ready to take advantage of the changing environment. Secondly (as assumed by Lionnet (1980)) that the translation of "bengali" should read "finch" and this in turn could mean fody. The presence of a substantial population of fodies would however have continued; such large flocks would have been recorded by Newton in 1867. The most likely case therefore is that the common waxbill was already established on Mahé prior to the settlement by man.

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