

SHORT COMMUNICATION

The first record of cavity nesting in the Ogasawara Islands Honeyeater *Apalopteron familiare* on Hahajima, Bonin Islands, Japan

**ORNITHOLOGICAL
SCIENCE**

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The Ogasawara Islands Honeyeater *Apalopteron familiare* is endemic to the Bonin Islands, where it survives only on Hahajima in the southern part of that island group (Ornithological Society of Japan 2000); it is classified as vulnerable by Birdlife International (2000). It typically builds its nests in the forks of branches (Yamashina 1934; Nakane 1989; Morioka and Sakane 1978; Higuchi et al. 1993; Ueda et al. 1993), however, in 1995 we found the first example of a nest built in a tree cavity (Fig. 1). The nest was found on May 5, 1995, in a secondary broad-leaved evergreen forest, where it was located in the trunk of a 15m-high *Casuarina equisetifolia*, 7.1 m above the ground. The tree cavity entrance was 20 cm high and 5 cm wide. The nest, a deep cup made of the leaf fibers of *Pandanus boninensis*, was the same shape as those built on the forks of branches.

One juvenile was seen to leave the nest on May 13, 1995, however the male parent (identifiable by its color-rings) was observed carrying nesting material into the cavity again on June 4. The left tarsus of the female parent was mutilated on June 22 and the pair stopped breeding. A few weeks later the female disappeared from the territory. Although the male remained in the territory, it did not use the tree cavity for nesting in 1996.

Species that do not usually nest in tree cavities on the mainland, sometimes use such cavities on islands; similarly, species may use cavities on islands while their close relatives on the mainland do not use them. For example, Ijima's Leaf-Warbler *Phylloscopus ijimae*, and the Izu Islands Thrush *Turdus celaenops* have both used cavities for nesting on the Izu Islands (Higuchi, H. unpublished data), whereas their closest

relatives *Phylloscopus* leaf-warblers and *Turdus* thrushes of the Japanese mainland do not (Kiyosu 1978). Similarly, the Izu Islands' subspecies of the Japanese Robin *Erithacus akahige tanensis* and the Ryukyu Robin *E. komadori* of the Japanese southwest islands have also used cavities for nesting in (Kiyosu 1978; Higuchi, H. unpublished data), whereas their closest relative *E. a. akahige* of the Japanese main islands has not (Kiyosu 1978).



Fig. 1. The nest in a tree cavity.

(Received 4 February 2002; Accepted 27 May 2002)

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It is perhaps the reduction or absence of nest-site competitors that allows insular species or subspecies to use tree cavities for nesting in. As with the other insular forms already mentioned, the honeyeater may be able to use tree cavities simply because of the absence of nest competitors. Birds that typically nest in tree cavities are absent from the Bonin Islands, whereas on the Japanese main islands there are many cavity nesters ranging in size from owls and woodpeckers to sparrows and tits. In many habitats nest cavities are a limited resource and cavity nesting species are known to compete for available cavities (e.g. van Balen et al. 1982; Carlson et al. 1998). It is possible that this case of cavity nesting by the honeyeater, and the other examples of cavity nesting among island species mentioned above, are examples of ecological release on islands (e.g. Baker-Gabb 1986).

We thank Hayato Chiba, Takaya Yasui, Tamotsu Hayakawa, Yoshio Hoshi, Takashi Ishii, Ryuji Tokiwa, Osamu Tsunashima and Seiji Tazawa for their assistance and encouragement.

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