

3 March 1980 was $17.1 \pm 0.3^\circ\text{C}$. During mid-March, burrow air temperatures increased to $20\text{--}22^\circ\text{C}$ (mean $20.8 \pm 0.7^\circ\text{C}$, $N = 11$).

On the first day post-hatching, 9 of 11 chicks were brooded and had mean body temperatures of $37.2 \pm 0.8^\circ\text{C}$ as compared with a body temperature of 35.8°C in an unbrooded, 1-day-old chick. By age 2–3 days post-hatching (Table 2) chicks attained mean adult body temperature ($38.2 \pm 0.6^\circ\text{C}$; Urdy, Auk 80:181–194, 1963). With no feeding for 2 days, the body temperature of a single chick, aged 5 days, was 24.0°C at an ambient burrow temperature of 20.5°C . After feeding by the parent of about 30 g of regurgitated food, the body temperature rose to 38.2°C the next day.

Discussion.—Attainment of adult body temperatures by petrel chicks at a relatively early age (2–3 days) may free parents from brooding, allowing foraging at sea soon after hatching. The early metabolic and thermoregulatory independence of Bonin Petrel chicks is partially due to the relatively stable micro-environment of the nest-chamber, which is typical of other burrow-nesting procellariiforms (Farner and Serenty 1959; Howell and Bartholomew, Condor 63:185–197, 1961; Wheelwright and Boersma 1979). In addition, it is not unusual for brooded or freshly hatched procellariiform chicks to have body temperatures higher than the brooding adult (Farner and Serenty 1959; Howell and Bartholomew 1961; Pettit and Whittow, unpubl.).

Diurnal body temperatures of incubating Bonin Petrels averaged 37.0°C in this study, which is significantly lower ($P < 0.05$, Student's t -test) than the mean incubation temperature of 38.5°C reported by Howell and Bartholomew (1961). Urdy (Auk 8:191–194, 1963) reported a mean body (rectal) temperature of 38.2°C in non-incubating Bonin Petrels resting on the ground at night on Laysan Island. Our value (37.0°C) is at the lower extreme of those reported for 31 species of Procellariiformes (Warham, Condor 73:214–219, 1971). Our petrel body temperatures were recorded by simply pulling the bird out through the preconstructed shaft and rapidly inserting the thermocouple. Howell and Bartholomew (1961) dug out their birds to take their body temperatures. Perhaps this digging was stressful enough to elevate the body temperature of the petrels measured by these authors.

The growth parameters of two Dark-rumped Petrel (*Pterodroma phaeopygia*) chicks from the Galapagos Islands (Harris, Condor 72:76–84, 1970) are presented for comparison with the Bonin Petrel (Table 1). The logistic growth rate constant, k , is 0.091 in the Bonin Petrel and 0.061 and 0.076 for the two Dark-rumped Petrel chicks, indicating a slower rate of growth for the larger dark-rumped chicks. Other growth parameters such as t_{10-90} , i.e., the amount of time (days) required to grow from 10–90% of the asymptotic weight, also indicate slower growth in Dark-rumped Petrels. Growth data for other tropical members of this genus have not been published.

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Prolonged incubation behavior in Common Loons.—Prolonged incubation has been documented for many bird species (Skutch, Parent Birds and Their Young, Univ. Texas Press, Austin, Texas, 1976) but has not previously been reported for the family Gaviidae.

During the summers of 1977 and 1979 two instances of prolonged incubation by Common Loons (*Gavia immer*) for 74 and 68 days, respectively, were observed in New Hampshire. Normal incubation periods reported for the species in New Hampshire range between 25–33 days and average 28 days (Sutcliffe, Aspects of the Nesting Ecology of Common Loons in New Hampshire, M.S. thesis, Univ. New Hampshire, Durham, New Hampshire, 1980). In both cases reported herein the loons were monitored at least twice weekly and chances of egg loss followed by renesting were unlikely. Both nests were ultimately abandoned. The 74-day clutch (two eggs) was found in the nest, whereas eggs from the 68-day clutch were found floating adjacent to the nesting island. All eggs were addled and their contents were about one quarter the volume of a normal loon egg. Reasons for non-viability were undetermined.

These examples serve to verify Skutch's (1976) observations that some bird species may remain faithful to unhatched, malodorous eggs for periods up to twice the normal incubation length, thereby providing a wide margin of safety for eggs taking longer to hatch. At northern latitudes, where short ice-free seasons may reduce the possibilities for renesting and fledging of chicks before freeze-up, this behavior may be beneficial to loon populations. However, in more southern areas like New Hampshire, where ice-free seasons are longer, prolonged incubation of non-viable eggs may prevent successful renesting that might occur otherwise.

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Barn Swallow fledgling successfully elicits feeding at a non-parental nest.—In Barn Swallows (*Hirundo rustica*), as in many species, the begging behavior of fledglings is ignored by the parents just prior to independent feeding. Fledglings then beg indiscriminately from any available conspecific. They are usually disregarded and begin to feed independently. Herein, I report on an instance of a fledgling successfully obtaining food from an adult which was not its parent. On 20 July 1980, while watching a nest in a Barn Swallow colony of 80 pairs under the decks of the Rutgers Marine Field Station, I saw a fledgling from another nest land in the nest I was watching and beg with the nestlings; the nest contained four 14-day-old nestlings. The female at this nest had previously been banded and color marked on her breast. Her mate was unmarked. The young Barn Swallow, identified as a fledgling by its breast color and yellow gape, landed on the edge of the nest. Both adults were there and called vociferously at the intruding bird. The intruding young remained at the nest despite this and the adults left after 60 sec. For 10 min the intruder crouched in the nest cup behind the nestlings. It then began to present its gape (which was noticeably larger than those of the nestlings) to the feeding adults. During the next 30 min the female made seven feeding trips to the nest and the male made ten. On two trips the intruder was fed by the male.

The adults apparently recognized the fledgling as an intruder. Immediately after feeding it for the first time the male pecked at it. On three other occasions the male paused after feeding his own young and tried to evict the intruder by pecking at it. All of these attempts usually lasted less than 1 min. The second time the fledgling was fed, the male stayed fewer than 10 sec at the nest.

This observation is consistent with what is known about individual recognition in Barn