

FEATURE ARTICLES

MALE-FEMALE DIFFERENCES IN PARENTAL CARE IN MONOGAMOUS
CRESTED AUKLETS

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Abstract. We studied patterns of parental care in Crested Auklets (*Aethia cristatella*), a monogamous seabird, for three breeding seasons (1996–1998) in the Aleutian Islands, Alaska, using radio-telemetry. In 1996, we found no sexual differences in parental care, low breeding site attendance rates, and reduced occurrences of copepods in food samples delivered to chicks, suggesting that food availability may have been low. In 1997 and 1998, we found significant differences in parental care between males and females, particularly early in the chick-rearing period: males attended and brooded their single chick 75% and 90% longer than females, while females provisioned 33% and 36% more often than males, respectively. We also found significant differences between prey types delivered to chicks by males and females for these two years. Males brought in 30% more euphausiids, a relatively large pelagic crustacean, than females, whereas females brought in 36% more copepods, a smaller crustacean, than males; however, prey mass per load did not differ. In 1998, we experimentally measured how vulnerable unattended young chicks were using models placed in unoccupied crevices. Eighty-three percent of the models showed signs of attack, presumably by conspecific adults. We concluded that unattended Crested Auklet chicks are highly vulnerable to attack. We suggest that males took on a greater role in chick brooding than their mates because they have a larger and more strongly hooked bill and are more aggressive than females, and thus better equipped than females to guard young chicks or the crevice breeding site.

Key words: *Aethia cristatella*, *Crested Auklet*, *euphausiids*, *parental care*, *planktivore*, *seabird*.