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Co-operative Breeding and Plumage Variation in the Orange-winged (Varied) Sittella

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Observations were made at a nest attended by six Orange-winged (Varied) Sittellas, three of which were colour-banded, near Armidale, New South Wales. The nest was watched for 15 hours, which included late incubation and nestling periods. Only one bird, a female, incubated and brooded. Five group members, including two juveniles from a previous brood in the same season, fed the nestlings and removed faecal sacs. The sixth bird, an adult female, was apparently discouraged from feeding by the incubating bird. The primary pair contributed over half the total feeding effort by the group. Observations at other nests prove that both sexes build, and that incubating females are fed frequently during the incubation period by other members of the group.

Allopreening is described and roosting behaviour suggests the operation of a social hierarchy within the group. The sex ratio of the group studied was even, but males outnumber females in most groups. Sexual dimorphism appears to exist in young sittellas, but adults may be indistinguishable by plumage alone. Juveniles are characterized by white markings on the upperparts but this is lost within the first few months. Buff edging on the wing-coverts, particularly secondary coverts, lasts at least eight months on some birds, and this character is most useful in recognising first year birds.