

Second broods reared by Starlings in northern Finland in 1980

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Starlings are thought to rear only one brood during the breeding season in Finland. If the first clutch is lost fairly early in the season, a repeat clutch may be laid. Repeat layings were recorded in the Oulu area in 1968, when a number of nests were destroyed during a period of severe weather at the end of May (Ojanen et al. 1979). But when desertion takes place later, e.g. during the first week in June, no repeat laying occurs (e.g. v. Haartman 1969).

Finnish nest card records include only a few late clutches started in June (v. Haartman 1969), and some of these may be second clutches, laid after a successful first clutch. Against this background, interest attaches to the second layings observed at Temmes, Koskelankylä (about 7169:437, Grid 27°).

The nest-boxes at Temmes were inspected at irregular intervals. The main purpose was to ring the nestlings, but the hatching dates, and numbers of ringed and fledged young were also recorded.

In 1980 the first Starlings were seen at Temmes, Koskelankylä, comparatively late, on 13 April. The breeding pairs numbered 11, and the start of laying, calculated backwards from the average hatching date (25–27 May in most nests), was about 8–11 May. The number of young in the 11 nests was 6, 8x5 and 2x3. No mortality was recorded in any of the nests. The first young departed from the nests on 14–15 June.

During the first week in June males started to sing anew, mostly near empty nest-boxes (numbering 10). Five second clutches were laid, three in boxes which were earlier empty and two in boxes where a first brood had been reared. In four of the nests, the young hatched on about 30 June; in the fifth clutch, they hatched later.

The first four nests contained 5, 4, 4, and 2 chicks, the fifth had 4 chicks. A nest with 4 young contained 1 addled egg and the nest with 2 young had 3 such eggs.

The chicks from the four oldest nests were ringed on 8 July, in the fifth the young were too small. This brood was later deserted. The young left the other nest-boxes on about 20 July, and later examination revealed no dead nestlings.

What is the reason for such a large number of second layings? Birds breed at those times of the year when conditions are favourable for rearing young, and the dates and duration of these periods vary with the climatic region and ecological requirements of the birds (Lack 1950). In Central and Western Europe the proportion of the Starlings laying second clutches averages about one fifth to one half, but varies from 0 to 100 % between different years (e.g. Ojanen et al. 1979). Andersson (1955) observed that the tendency to lay a second clutch is connected with the earliness of the season and, ultimately, with the abundance of food.

Summer 1980 was very warm in the whole of Finland. The mean temperature of June was 16.8°C at Oulu, 4.5°C higher than the mean for the standard period 1931–1960. Warm spells occurred in the first ten days and the last half of June, the maximum temperatures often exceeding 25°C. A local peak of grass-eating caterpillars was also seen at Temmes just at the time of initiation of the second clutch. The species was probably *Cerapteryx graminis* (suggested by Jorma Kyrki, Cand. Phil., Zoological Museum, Univ. of Oulu; unfortunately no specimens were collected). Thus two reasons can be found for the second layings, both very rare in northern

Finland: hot weather during the first half of June and a mass occurrence of caterpillars. The start of laying of the first clutches was perhaps about the median time for the Oulu area (10 May, see Ojanen et al. 1979) and did not *per se* affect the second layings.

Selostus: Kottaraisen toiset poikueet Temmeksellä v. 1980

Kottarainen pesii Suomessa yleensä vain kerran kesässä. Uusintapesinnänkin on katsottu rajoittuvan vain varhain toukokuun lopussa tuhoutuneiden pesyiden korvaamiseen. Niinpä Temmeksen Koskenkylässä (7169:437) 1980 havaittu toisten pesyiden muniminen ja myös suurelta osalta poikasten lentokykyisiksi kasvattaminen on huomionarvoista.

Ensimmäiset pesyeet munittiin Temmeksellä normaalin ajankohtana, n. 8–11.5., arvioituna kuoriutumisa-jankohdasta. Pesiviä pareja oli 11 ja poikasia ensimmäisissä pesyeissä 6, 8x5 ja 2x3 kappaletta. Poikaset lähtivät pesäpöntöistä n. 14–15.6. Jo kesäkuun alkupäivistä lähtien koiraat lauloivat tyhjiä pönttöjen (10 kpl) edustalla. Viisi paria aloitettiin munimisen, 3 tyhjiin ja 2 aiemmin asuttuihin pönttöihin. Poikaset kuoriutuivat 30.6. tienoilla neljässä pöntössä; viidennessä pesässä, josta edelliseltä poikaset lähtivät lentoon varsin myöhään, oli haudonta vielä menossa. Poikasia oli varhaisissa 5, 4, 4 ja 2, myöhäisimmässä 4. Eräs neljän poikaisen pesye sisälsi yhden ja pienin pesye kolme kuoriutumattomia munia.

Kaikki varhaisimpien pesien poikaset selvisivät lentokykyisiksi, mutta myöhäisimmän poikaset tavattiin kuolina 13.7.

Poikkeukselliseen pesimiseen kahdesti lienee kaksi syytä: ensiksi kesäkuu oli ennätyskellisen lämmin keskilämpötilan noustessa Oulussa 16.8°C:een, 4.5°C korkeammalle verrattuna vuosien 1931–1960 vastaavaan lämpötilaan. Toiseksi, Koskelankylässä todettiin paikallinen "heinämadon" toukkien massaesiintyminen. Amanuenssi Jorma Kyrki oletti "heinämatojen" olleen niitty-yökkösen *Cerapteryx graminis* toukkia. Laji esiintyy aika-ajoin massoitain.

Anderson (1955) selitti kottaraisen toisten pesyiden esiintymistajuuden liittyvän varhaiseen ensimmäisen pesyeen munintaan sekä, ultimately, hyvään ravintolanteeseen. Temmeksen toisten pesyiden muniminen liittyy etenkin viimeksimainittuun seikkaan.

References

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