

in nest A under the bridge. On 26 May, I visited the territory for about three hours. Nest A was kept under continuous observation for about one hour. Feeding visits by males to nest A occurred at 10.17, 10.18, 10.54 and 10.57. At 11.03, I caught and ringed one male 50 m downstream from nest A. At 11.11 an unringed male fed nestlings in nest A. Later that day (14.00), I found another nest (nest B) in which a male was incubating a full clutch of 5 eggs. This new nest was located only 20 m upstream from nest A. At my next visit to the territory, 2 hours on the 27 May, nest B was abandoned. At nest A, however, two males (one ringed and one unringed) were still feeding six nestlings.

These observations were made as a side-project to my main project of studying the breeding biology of Grey Wagtails, and some information is therefore lacking. Taken together, however, my observations provides strong indications that this was a case of social polyandry. The normal social mating system in Pied Wagtails is social monogamy, i.e. one male form a social pair bond with one female (Cramp 1988). Previous reports of aberrant social matings in Pied Wagtails has been a few cases of social polygyny (i.e. one male forming pair bonds with two females) (Fitzpatrick 1994, 1996). The case described here from southwestern Sweden seems to be the first case of social polyandry in this species.

Social polyandry is an uncommon social mating system in birds, occurring only regularly in 3–4% of all investigated bird species (Oring 1986). In passerines, social polyandry is even rarer and has only been recorded in a handful species (Møller 1986, Hasselquist & Langefors 1998). In some of these species it is in the form of sequential polyandry, i.e. where one female raises a brood with one male, then moves to form a new pair bond and build a new nest with another male. This is the case in sedge warblers (Hasselquist & Langefors 1998) and Common Redpolls (Seutin et al. 1991). In other passerine species with social polyandry, two males occupy the same territory together with one (or several) female and both males help with feeding young in the same nest, a social mating system called cooperative social polyandry. This social mating system occurs regularly in dunnocks in England (Davies 1992). In the case of the polyandrous Pied Wagtails I observed in southwestern Sweden, it is likely that the same female laid two clutches in sequence. When the female and the first male were feeding in nest A, the second male was incubating in nest B (but also sometimes feeding in nest A). I can not, however, exclude that nest B was built by

another female that had disappeared before I found the nest. However, the circumstances that I never saw more than one female and two males and the very short distance between the two nests argue against this interpretation. Why then should the second male help with feeding in nest A? A possible explanation is that he had copulated with the female at nest A when she was fertilisable, and that male 2 therefore thought that he had sired at least one young in nest A. In Dunnocks, it has been found that subdominant males in cooperatively polyandrous groups are helping with feeding nestlings in relation to the access they had to the female when she was fertile (Burke et al. 1989).

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## Polygyny in the Red-backed Shrike *Lanius collurio*

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The frequency of polygyny varies considerably in different bird species and it is often difficult to see why it is common in one and rare or non-existing in other species. Special traits in the sharing of duties between male and female in the nesting period must, however, have great influence on the possibilities to raise young successfully under polygynous conditions.

In the Red-backed Shrike, the male has extremely high duties to deliver food to the female. This starts with intense courtship feeding already in the period of pairing and nest-building. Later, during incubation, the female gets all her food from the male, and after hatching she continues to be fed to a great extent up to the nestling age of about 5–6 days. Even after this she may stay on the nest brooding the young, keeping them warm for long spells, and then both the female and the young need to be fed by the male. Of course, the possibilities to succeed in a nesting attempt under polygyny must be very small in such a species. Lefranc & Worfolk (1997) states all *Lanius* species to be typically monogamous, and in a survey of the frequency of polygamy in many well studied species in Europe (Møller 1986) the Red-backed Shrike is indicated as totally monogamous. Also Cramp (1993) states for *Lanius collurio* "... mating system monogamous. No other patterns reported."

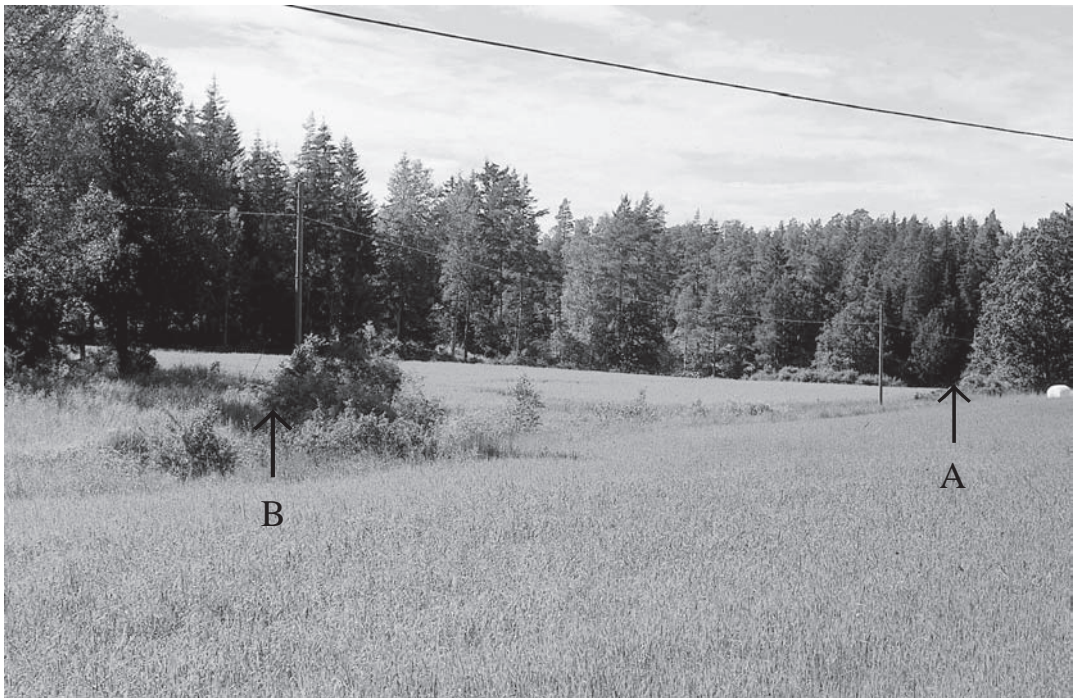
During several decades of studies of the Red-backed Shrike in Sweden, with more than 400 nesting occasions, I have never before found any sign of polygyny. But in June 2000 I recorded a case of polygyny for the first time. On 15 June I found one male and two females in a territory at Lilla Mar in the parish of Gryt, Östergötland. No aggressive behaviour could be seen between the two females. This territory has been used for many years and its area has mostly been very small, hence probably a favourable one concerning prey density. In the centre there is a deep ditch with running water surrounded by arable and pasture land. On top of the steep walls of the ditch there are here and there hard-browed small dense blackthorn bushes *Prunus spinosa* (Figure 1). Mixed wooded areas with deciduous trees dominating surround the open areas, and straight over the fields and parallel to the ditch there is a telephone cable, much used by the shrikes, giving them well situated look-outs for insect hunting.

On 27 June I found the female in nest A brooding two nine days old nestlings. These two young lay upon two dead and cold young. In her effort both to feed and keep her young warm, I saw the female

several times fly from the nest straight up into the top part of a spruce, badly raided by insect larvae. My earlier experience of the food of the Red-backed Shrike (Olsson 1995a) has shown that larvae are not the best food for nestlings. The female had no help from the male, but with such short flights she had managed to feed and warm the two nestlings still alive. The other two young had obviously died one or two days earlier, probably weakened by chilling in a three days rain on 22–25 June. The age of the young in the nest indicated a start of egg-laying on about 2–3 June, which in this area is the normal culmination of the laying period (Olsson 1995b).

On the same day, 27 June, I found the other female incubating four eggs in another nest (B) about 40 metres away along the ditch. She was fed by the male and at this nest he also showed anxiousness with warning and other kinds of display, which was now not the case at nest A. Judging from the age of the four nestlings in nest B at a visit on 4 July, egg-laying must have started about ten days later in nest B than in nest A.

With reference to our knowledge that Red-backed Shrike males always take a great part in the nest



Figur 1. The central part of the territory at Lilla Mar. The positions of the nests of the two females (A and B) in the bushes along the ditch are indicated. Photo by the author.

*Den centrala delen av reviret vid Lilla Mar. Pilarna vid A och B markerar de två bolägena i slånbuskagen på dikeskanterna.*

building, the male must have left the female A at a very early stage. Female A probably started the incubation without or with very little feeding from the male, but unfortunately I have no observations from these days.

This first case of polygyny in the Red-backed Shrike was the result of two females breeding simultaneously in the territory of one male. Another male was never seen there. With half the number of nestlings dying in the first nest, the prospects for a future spread of this habit seems very small. Besides the three days with moderate rainfall mentioned above, the weather in June 2000 was quite favourable for shrike nesting. With a more traditional kind of weather in this month and area, including several more days of rain, attempts of polygyny would have still less possibilities of success in both of two nests.

## References

- Cramp, S. (ed.) 1993. *The Birds of the Western Palearctic*. Vol. 7. Oxford University Press, Oxford.
- Lefranc, N. & Worfolk, T. 1997. *Shrikes. A guide to the Shrikes of the World*. Pica Press, Sussex.
- Møller, A. P. 1986. Mating systems among European passerines: a review. *Ibis* 128:234–250.
- Olsson, V. 1995a. The Red-backed Shrike *Lanius collurio* in southeastern Sweden: Habitat and territory. *Ornis Svecica* 5:31–41.
- Olsson, V. 1995b. The Red-backed Shrike *Lanius collurio* in southeastern Sweden: Breeding biology. *Ornis Svecica* 5:101–109.

## Sammanfattning

### *Polygyni hos törnskatan Lanius collurio*

Törnskatan anges överallt i litteraturen som utpräglat monogam, och något undantag från den regeln har hittills ej konstaterats i något land. Som ett sannolikt mycket ovanligt undantag från regeln kunde jag dock påvisa ett sådant fall i juni år 2000 vid Lilla Mar i Gryt, Östergötland. I ett så gott som årligen besatt revir sågs där den 15 juni en hane med två honor. Senare besök på platsen den 27 juni visade att en av honorna då hade ca nio dagar gamla ungar i boet i buskar på en dikeskant (A) samtidigt som den andra honan låg på fyra ägg ca fyrtio meter bort (B) i ett liknande slånbarssnår utmed samma dike (Figur 1). I boet A visade sig honan ligga på två levande ungar som i sin tur låg ovanpå två andra döda, kalla kullsyskon. Av de fyra äggen i boet B blev det senare fyra flygfärdiga ungar. Skillnaden i tidpunkten för äggläggningens början i de två bona bör ha varit cirka tio dagar.

Hanen hos törnskatan är alltid starkt delaktig redan från början i häckningsaktiviteterna, alltså även i bobygget. Han sköter sedan också en helt övervägande del av näringsanskaffningen, så gott som allt till den ruvande honan och en stor del sedan till både henne och ungarna under deras nästid. Vid mitt besök vid reviret den 27 juni sågs hanen enbart engagerad vid boet B, och honan vid boet A var helt ensam i sina försök att klara värden av sina två ungar ännu vid liv.

Allt talar för att honan i boet A mycket snart efter äggläggningen av hanen blivit lämnad att själv skaffa sig föda och att samtidigt försöka hålla ägg och ungar varma. Att detta inte lyckades henne särskilt väl framgår ju av resultatet med två levande och två döda ungar i boet. Resultatet kan ju också sägas förklara varför polygynin aldrig kommit att få någon betydelse hos en art som törnskatan där hanens insatser är så betydelsefulla.

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## Vilka ringduvekullar *Columba palumbus* genererar ungar?

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Kan statistik över omhändertagna, nedfallna eller bolösa, ringduveungar visa något om ringduvans häckningsframgång relaterat till årstid? Kan denna statistik visa på kråkfåglars predation under viss tid, och kan den möjligen ge information om frösättning av exempelvis bokollon?

## Förklaring

”Fågelskydd Spillepeng” bedriver bland annat rehabilitering av skadade och illafarna fåglar. Denna verksamhet genererar ofelbart kontakt med diverse omhändertagna fågelungar, och bland dessa är ringduveungar talrika. Nedanstående resonemang grundar sig på anteckningar över samtliga inkomna ringduveungar ur totalt 81 kullar under åren 1998–2000, och avsikten är att visa vilka äggkullar som genererar stora ungar. Ungarna har åldersbestämts vid omhändertagandet och utifrån detta har datum för äggläggning (ruvning 17 dygn; Cramp 1985) räknats fram. Majoriten av ungarna inkommer vid 2–3 veckors ålder och åldersbestämningen påstår jag är korrekt. Tidpunkt för äggläggning för de 81 kullarna under de tre åren framgår av Figur 1.