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**Breeding success and behaviour of a pair of House and Tree Sparrow  
(*Passer domesticus*, *Passer montanus*) in the wild**

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Hybrids of House × Tree Sparrows are often reported (e.g. NYHOLM 1966, SUMMERS-SMITH 1988, p. 267) but instances in which the behaviour of mixed pairs were described in the wild are lacking (see PACCAUD 1966, ALBRECHT 1983).

A pair of ♂ House and ♀ Tree Sparrow occurred in “Finca la Ricarda”, Prat de Llobregat (province of Barcelona, Spain, for details see CORDERO & SALAET 1989, SALAET & CORDERO 1988). The pair occupied a box which formed part of a set of twenty-four, all the rest occupied by Tree Sparrows (subcolony B). In another set of twenty-four nestboxes 100 m apart (subcolony A), House and Tree Sparrow coexisted occupying contiguous boxes.

Table 1. Some reproduction parameters of ♂ House Sparrow (HS) × ♀ Tree Sparrow (TS) and nestling phenotypes. ?\*, nestling dead before plumage development.

Brood	Onset	Clutch size	N hatching	Nestling phenotype				N fledgings (13th day)
				hybrid	HS	TS	?*	
I	3.V	4	4	4	0	0	0	4
II	5.VI	4	3	1	0	2	0	3
III	7.VII	4	4	3	0	0	1*	3

Table 2. Behaviour items recorded by a pair of ♂ House Sparrow (HS) and ♀ Tree Sparrow (TS) and intruder Tree Sparrow (I TS) from a total of five hours of observation during early and late fledging stage of the second brood (2 hours) and laying stage of the third brood (3 hours).

Actor	♂ HS	♀ TS	I TS
Sexual display	2 to ♀ TS	—	1 to ♀ TS
Solicitation of copulation	—	1 to ♂ HS	—
Copulation attempts	—	—	2 to ♀ TS
Nest building	8	—	—
Threat & attacks	6 to I TS	3 to I TS	—
Incubating instances (found when checking the boxes)	7	3	—
Turns of incubation	3 after ♀ TS	2 after ♂ HS	—
Feeding nestlings	9	19	—

The ♂ House and ♀ Tree Sparrow had normal plumage patterns of the respective species. They successfully raised three broods in which hybrid phenotypes were present (Table 1). The Tree Sparrow was ♀ as it was controlled laying eggs which had normal Tree Sparrow size and pattern.

The ♂ House Sparrow was present in the nest or in its immediate surroundings throughout the breeding period but no ♀ House Sparrow was seen around. The ♀ Tree Sparrow was recognized from intruders by its behaviour and its continuous presence in the sequence of observations. Both sparrows cooperated in defence and breeding activities (Table 2). They attacked intruders but no intrapair threat or aggression was recorded. Intrusions were made by a Tree Sparrow, probably ♂ for its sudden attempts of copulation with the ♀. The ♀ Tree Sparrow avoided copulation by attacking the intruder, however, the presence of pure Tree Sparrow phenotypes in the second brood indicates successful extra-pair copulations (CHEKE 1969).

CHEKE (1969) suggested that interspecific nest site usurpation during the laying stage favoured natural cross-fostering in the sparrow species and this cross-fostering would facilitate future hybridization through an early learning process of mate recognition. But reports on this aspect have not been cited in the literature (e.g. ALBRECHT 1982) and I obtained no cross-fostering in the area although nest usurpation was relatively frequent in subcolony A (CORDEIRO unpub.).

Alternatively, the observations support the view that hybridization may arise if one individual of a species occurs in the breeding area of the other and there is no conspecific for mating available (e.g. MILLER 1955, ALBRECHT 1983). This mechanism of hybridization would not imply that the intruding species must be rare in the geographical range: I suggest that a single individual (♂ House Sparrow in this case), unable to obtain a nest site and mate in subcolony A, would migrate and settle in the microhabitat where the other species is breeding successfully (subcolony B). Here it might obtain a nest site and mate with an allospecific ♀ (Tree Sparrow) while conspecifics breed nearby, presumably in a better area for the species where nest sites and mates are limited resources subject to a high degree of competition.

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### Zusammenfassung

Ein Haussperling-♂ und ein Feldsperling-♀ bildeten ein Brutpaar in freier Natur. Sie brüteten dreimal und hatten insgesamt zehn Junge, davon acht mit intermediärem Gefieder (Tab. 1). Das Paar zeigte normales Sperlingsverhalten. Verteidigung und sonstige Brutpflege wurden gemeinsam durchgeführt (Tab. 2). Vermutlich begünstigte das Fehlen eines Haussperlingsweibchens diese Kreuzung.

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## Mönchsgrasmücke *Sylvia atricapilla* Brutvogel auf dem Peloponnes

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Die Verbreitung der Mönchsgrasmücke war in Griechenland bisher nur in groben Zügen bekannt. PORTENKO & VIETINGHOFF-SCHEEL (in STRESEMANN, PORTENKO & MAUERSBERGER 3, 1971) ziehen — gestützt auf KRÜPER (1875) — die südliche Arealgrenze der Art in Griechenland am Parnaß. Dies entsprach dem damaligen Kenntnisstand (BAUER u. a. 1969). Die in der griechischen Ausgabe des „Peterson“ (PETERSON u. a. 1981) enthaltene Verbreitungskarte für Griechenland weist für *Sylvia atricapilla* ein geschlossenes Verbreitungsareal im Norden des Landes aus (Nordost-Epirus, Makedonien und Thrakien) mit wenigen Einzelvorkommen in