

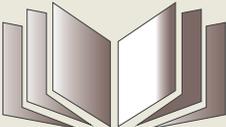
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edition

Klaus Dietrich Fiuczynski

# The Eurasian Hobby



  
VerlagsKG Wolf

# The Eurasian Hobby (*Falco subbuteo*)

Biology of an Aerial Hunter

*This book is based on the German edition of "Der Baumfalke" (first edition 1987, then 5<sup>th</sup> edition together with Paul Sömmer in 2011) but has been updated and revised. A new analysis of the biocide situation was made by Peter Wegner.*

Klaus Dietrich Fiuczynski

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**Fig. 3:** Hatching: opening the eggshell. The elder sibling hatched before. Eyes open, egg-tooth visible, white downy plumage. Little traces of feces, later defecation will be done above the nest edge, so that the inner nest itself will remain clean. Old Buzzard's nest. Saxony, 2003-07-07. FRIEDHELM RICHTER.



**Fig. 4:** Young in their first down plumage, about one week old, being fed with little meat pieces offered by the adult. Old crow's nest. Saxony, 2003-07-20. PETER REUSSE.



**Fig. 5:** With three weeks of age the “facial mask” develops: contrasting black – yellow/orange. Cere and eye-ring blue. The growing contour feathers of the underparts begin to show the beginning of later heavy streaking. Age differences among siblings are small; the right hand young is the younger. Sitting on the intertarsal ankles in the nest, an old Raven’s nest. This is the ringing age for most of the young. Saxony, 2008-07-24. PETER REUSSE.



**Fig. 6:** Fledging, leaving the nest develops gradually, climbing around, coming back to the nest: “takkeling” stage (Dutch, in German “Ästling”). Only a few white down visible, which fly away through preening all day long. Upper parts black-blue, each feather with a light, cream fringe. The young bird in the centre shows the light pattern of the “occipital face”, on the back of its head. Heavy dark streaking on the deep yellow basic colour of the young on the right hand side. Late brood: 2006-09-09, Saxony. PETER REUSSE.

## 5 Voice: alarm call to soft duetting

**Young in the nest:** A faint “djeep”, “djip” when a climber comes to the nest, making the nest tree tremble, when the young are still small at about one week old.

From 8<sup>th</sup> to 10<sup>th</sup> day after hatching hissing when a human face or some bigger object approaches the young.

Begging call of the nestlings “gjeep gjeep, kjeek, kjeek”.

At three weeks of age young make a call similar to that of adults but coarser with “a sore throat” sound when they are grabbed for ringing or when they expect the climber at the nest.

Voice varies in this situation, when excited it is higher pitched and more rapid *staccato* – not a useful characteristic for sex determination.

When exercising wings with rapid flapping the nearly fledged young are acoustically very active, standing on the nest’s edge and calling rhythmically “kjeah kjeah” or “kjee kjee...”, “keek keek...” *sostenuto* and *accelerando*!

**Fledged young:** Begging calls, typically high pitched and rhythmically uttered “kjee kjee...” to „gjee gjee gjee” and “kjeah kjeah”, always with a “sore throat sound”. Can be heard even from greater distance and from high up in the air. Calls in August and September give a hint of breeding place when the young are flying towards the prey-carrying male.

Apparently not only a begging call but also some sort of contact call when brothers and sisters meet. Beginning of call stimulates the others to call also until “*unison para tre voce*”. Calling without the presence of the adult, e.g. when chasing each other playfully, also when appearing in the late afternoon or evening coming down from the sky after lengthy insect hunting, alighting on their posts, tops of trees with a good view around.

Alarm call when frightened by appearance of a human/humans on the ground or when for example a Honey Buzzard intrudes into the area also which is very similar to the adults “keekeekeek”.

**Adults:** A faint “pik” or “kik” by the female every 2 to 3 seconds when feeding small (<10 days old) young. Difficult to localize for humans but will lead the observer straight to the nest. Presumably a stimulating contact call between mother with food morsels and chicks.

A single, or in rapid sequence, sharp loud “pitt” or “kitt”, heard on many occasions and given by both sexes: given on the appearance of the mate landing on a possible nest in courtship flights, before prey delivery, and especially when a stranger is intruding into the territory.

A loud, sharp and high pitched “pittseeerrrr” with a rolling “r” to a deeper, lower pitched “ptssooooorrr”, uttered as a single call or several calls in rapid sequence. Called after the “pitt pitt ...” announcement of an intruding Hobby by the territory owner together with typical postures (bowing to horizontal position) and in flight when chasing and pursuing the intruder. Loud “kikikikikik” call of about 10 syllables, but length, rhythm, pitch and tone etc. vary considerably. This variation may be so typical for individuals that an experienced ear may distinguish between several Hobbies and recognize them again in the following year.

As a rule the voices of males are higher pitched than of females, a good characteristic to distinguish between the sexes especially when the pair is heard together.

Exceptions are males with strange vocalizations like “pleahpleahpleahpleah” or who are nearly toneless.

The above is usually called by the male when arriving with prey for female and young sometimes already within 500 m distance from the nest. This is also the alarm call used when attacking corvids, other birds of prey from buzzard-size upwards or tree nest climbing humans. Diving on these potential predators is combined with an increasingly loud and higher pitched alarm call with great excitement at the very point of attack, in humans the head is touched by wing of the attacking bird.

May develop into a *prelude* “gjeeee-gjeeee-kikikikik” when the male has perched with prey but the female will not appear at once.

Soft “Lahnen” (falconer’s language) “gjee” to “gjeah.....” with different tone “colour”, sequence and volume, *forte*, *mezzoforte*, *piano* and *nearly pianissimo*; *moderato*, *espressivo*, *con brio* to *vivace*.

Males sometimes reluctantly while females mostly use fluent syllables calling.

Duetting: The male, soft to quiet and faint calling being answered by the female up to real duetting of both sexes together, very tender and beautiful, the male always with a higher pitch.

Invitation to copulate is a broad, sometimes coarse Lahnen by the female resembling begging call of the juveniles.

When young are in the nest and the female is plucking or “preparing food” (consuming some bites for herself) before flying to the nest she may continuously call “gjee gjee gjee” in rapid sequence, rapid and higher pitched.

### 9.5.4 Sex ratio, sex differences

As a rule, sexing the nestlings with plumage characteristics is not possible. The “trousers” are always spotted or streaked and patterns on under tail coverts vary without giving a clear indication if female or male: young females may also lack streaked or dotted under tail coverts:

“Shaft streaks, arrow-heads or 3 mm strong bars – all greater than 5 mm from edge of web; marks may be almost absent and less frequent in males as compared to females. The ochre [background colour] of males has a pitch of orange.” (RISTOW 2004: 719 in CHANCELLOR & MEYBURG eds.).

Two young males had brighter upper head due to broader edges of individual feathers. RISTOW (2004: 719) pointed at sex differences in tail feathers near subterminal cord:

“Measuring the breadth of dark and light bands of tail barring showed that juvenile Hobbies have broader dark bands than adults, and juvenile females on average have marginally broader dark bands than juvenile males... The light bar proximal to the subterminal band is interrupted at the shaft by a dark stripe, which seems to extend from the next charcoal-brown bar (Fig. 4 RISTOW l.c.). This brown stripe in R3-5 of juvenile males covers only part of the shaft (0-1 mm) or the shaft plus half a millimetre of the web to the left and right...whereas in juvenile females this brown stretch is broader (1.5-3 mm). Only a few specimens have intermediate values” (RISTOW 2004: 723-724)

To use this trait the young should be around 24-26 days of age, as they may leave the nest when someone is climbing up. Therefore this method is of restricted value for the ringe.



**Fig. 78:** Two just hatched Hobby nestlings, 3-4 and 1-2 days old. Weight 42 and 26 g. Egg-tooth on the upper beak. Few feces. When nests are robbed at this age of the young those tiny white dots are proof that the young had hatched, but only detectable by a nest inspection. Eggshell after the hatching process still in the nest, one more egg did not hatch. Nest of Hooded Crow. 13<sup>th</sup> July, 1977, Berlin city forest, Grunewald. KLAUS DIETRICH FIUCZYNSKI.

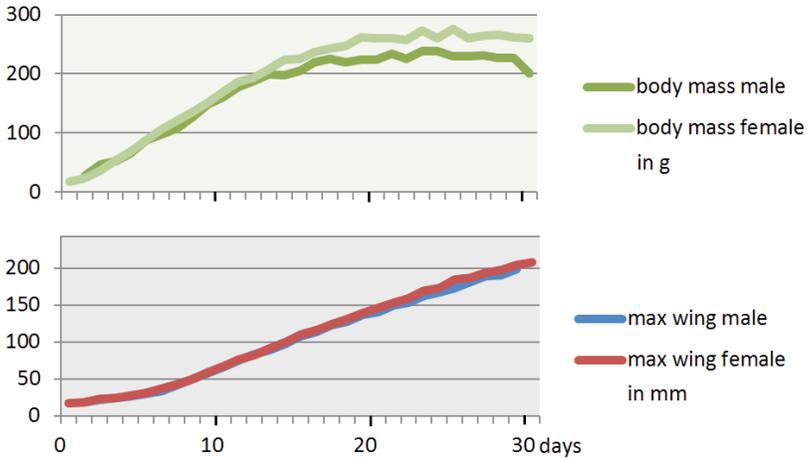


Fig. 79: Wing length and body mass may be used for sex discrimination in grown-up nestlings but data may be used with caution as there is individual variation and overlap, see discussion in FIUCZYNSKI (1978) and FIUCZYNSKI & SÖMMER (2011). HARDEY et al. 2009<sup>2</sup> fig 35 and 36 p. 182 on the basis of BUJLSMA 1997. By kind permission of the publisher: The Stationery Office, Edinburgh.



Fig. 80: Broods of 4 occur sometimes but at a low rate (4-6 %). Here 4 young, well developed, in a basket. The young bird on the right appears to be a little younger. 26<sup>th</sup> July 2001, Saxony. PETER REUSSE

- nestling from S Finland beginning of March of following year in South Africa, 9,650 km from place of birth ([www.fmnh.helsinki.fi](http://www.fmnh.helsinki.fi))

Much progress has been achieved by the classical methods of migration research: ringing, re-capture, radar studies, observations in the trans-migration and winter areas, stable-isotope analysis of feathers (e.g. SCHÜZ 1971, BERTHOLD 1996, WERNHAM l.c., BILDSTEIN l.c., NEWTON 2008). Difficulties with observations such as of cruising at high altitude and nocturnal migration have been overcome in recent times: Satellite telemetry now yields new and surprising results by continuous monitoring of movements of living individuals (review by MEYBURG & MEYBURG 2009; [www.raptor-research.de](http://www.raptor-research.de)).

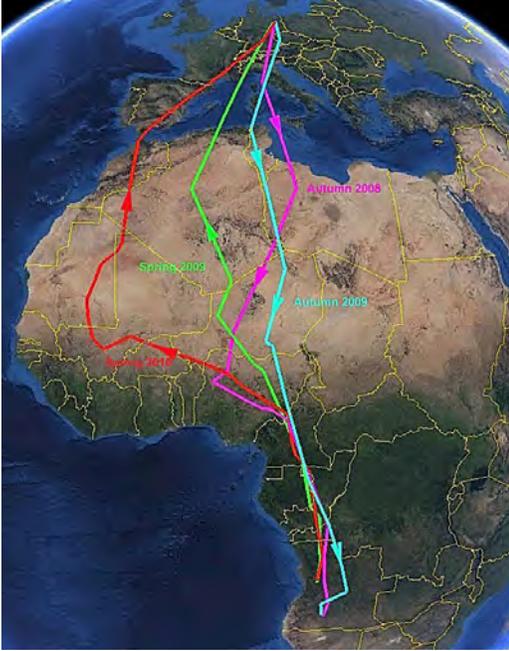
## 12.1 Satellite telemetry – the breakthrough

A female German Hobby was equipped in 2008 with the new 5 g satellite radio transmitter giving data of two complete migration cycles. These results may be presented here *en detail* (cf. MEYBURG et al. 2011).

On 9<sup>th</sup> August 2008 an adult female was trapped by BERND-ULRICH MEYBURG and the author near the nest NW of Berlin.



**Fig. 118:** Satellite telemetry – a breakthrough in migration research. Here the worldwide first 5 g device with antenna and solar panel has been applied by BERND-ULRICH MEYBURG to a female adult Hobby north of Berlin giving new insights about migration routes and movements in winter quarter for 2 complete cycles. 9<sup>th</sup> August, 2008 KLAUS DIETRICH FIUCZYNSKI.



**Fig. 119:** Autumn and spring migration routes of an adult female Hobby between its breeding site northwest of Berlin and the wintering area in Angola, from autumn 2008 to spring 2010 (according to MEYBURG et al. 2011).

We put the White-tailed Eagle “Albi” on a post, erected the net and went into hiding. (The two young, ringed on 23<sup>rd</sup> July in an old Raven’s nest at the age of 18 and 19 days by PAUL SÖMMER, had already left the nest, on 7<sup>th</sup> August when they were observed in the neighbouring Scots Pine.)

At once the eagle is discovered by the female Hobby with loud alarm calling and low mock attacks above the eagle. Silence, then alarm call and attack activity again. Silence. Will the female attack the eagle once more and “go into the net”?

Suddenly another alarm call, a stoop – and the female is caught! We carefully release the Hobby from of the net, cover the head with a cloth, turn it on the back so that akinesis is occurring. Biometrics: weight 265 g, wing length 275 mm, all adult plumage, no moult. Ringing, then BERND-ÜLRICH MEYBURG who has put telemetry devices on hundreds of eagles, kites etc. fits the Hobby with the first world-wide 5 g satellite transmitter, attaching it as “backpack” using a harness with neck and body loops.

Carefully the female is laid down on the forest floor, the cloth covering the head slowly removed, we return to our hideout again. The falcon remains

## Dr. Klaus Dietrich Fiuczynski

Born in 1938, Doctor of Zoology; he studied biology (major zoology), chemistry and geography at Freie Universität Berlin, where he finished his state exams for Higher Education and graduated. Dr. Klaus Dietrich Fiuczynski was the principal of Escola Corcovado in Rio de Janeiro, Brazil, and Rückert High School in Berlin. He published numerous papers, mainly on birds of prey in Berlin and the area around Berlin.

Dr. Klaus Dietrich Fiuczynski is the only ornithologist who systematically studied the Eurasian hobby (*Falco subbuteo*) for more than 6 decades. He fully documented his fieldwork while portraying the development and the habitat changes of the small falcon in many publications.

This book is based on the research results that Klaus Dietrich Fiuczynski and Paul Sömmer published 2011 in German. In the present study, the author pays particular attention to the results of satellite telemet-



ry – a breakthrough in migration research. He furthermore discusses the increasing tendency of pylon breeding. The ongoing modification of the landscape through wind turbines and their influence on the Hobby and other raptors is another issue.

The population of the Eurasian Hobby is still endangered in some parts of Europe. This book aims to broadly impart knowledge essential for the effective environmental protection.

### Content:

- » Systematics, subspecies, field characteristics
- » Descriptions, biometrics
- » Habitat, distribution, status, breeding
- » Migration, predation, protection



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