

## The disadvantages of ringing for the owls

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Our study on a barn owl population in southern Lower Saxony was done from 1996 to 2011 (Kniprath & Stier-Kniprath 2012). Thereby we realized: Not the rings themselves do harm the owls: For such an influence we don't have a single proof.

First I want to describe, how we work. First we control all boxes to find the broods and to register first breeding data. If we find only eggs we will control again some weeks later. If hatchlings are present, we try to trap the male. In most cases the female had already been caught at the first control. So each brood is controlled 2-3 times up to the end of the hooding period. To reduce eventual harm to the broods, we close up from the outside every accessible box from the first control on. So the female can't escape. After the control it is put back to the brood and stays there. So the risks for the brood are reduced clearly. Inside many of the boxes, which are not accessible for this closure from the outside, we one by one had installed drawbridges following the model of mediaeval castles and catch everyone being inside the box.

Then, when bringing prey to the brood, the males are trapped inside the box with a temporary trap-door, which is liberated by a trip-thread. Meanwhile the female together with the brood is hold captive beneath a bicycle-basket. The females then mostly continue to incubate or hood unimpressed.

We won't hide that there have been damages by our work. 107 of a total of 573 broods had no success. We found 25 of these deserted already at our first control. For a surplus of 13 more we exactly know the causes and for again 12 the causes certainly were our control and trapping activities. There remain 57 losses with uncertain causes. If we now assume that among these the part of "natural" causes was at about the same magnitude, 44 of the losses (41% of the unsuccessful broods, 7.7% of all broods) could be due to our activities.

Two broods were lost as the until now unexplained closure of the initially mounted permanent trap-doors had happened. Thereafter all these permanent trap-doors were removed and we now exclusively trap by the temporary trap-doors, introduced newly for every trapping attempt.

Twice it happened that an owl – once a fledgling, once an adult bird – became entangled by the draw-thread of our draw bridges. Once we directly squeezed an adult bird by our draw-bridge without realizing this accident. Concerning one more adult bird we underestimate the ingenuity of martens. They found the owl parked in a sack, while we were waiting for the male. Since then we save owls exclusively inside the car. In the beginning, when we not yet used draw-bridges, a female during unfavourable weather left the brood for some hours. During that time one of the older siblings obviously had tested the youngster, which was only two days old, for suitability as food. This sibling died from a damage at its skull. In a second brood, which was video-controlled, the events were similar. The female was absent more than eight hours. The family LANGE, observing the brood, wrote to us: "Just before the return (of an adult) at about 22.30 h (the evenings before the time of arrival of the male), the greater siblings began to pull at one of the smallest siblings. They attacked it and lifted it by their bills. At the beginning movements of the head and the wings could be observed, later, after a longer treatment, no more. Several of the siblings handled the small young owl and tried

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<sup>1</sup> Translation of the original publication: Kniprath E & Stier-Kniprath S 2012: Die Nachteile der Beringung für die Eulen. Eulen-Rundblick 62: 8-9

to swallow it. There were no movements of defence.” (U. & A. LANGE per mail) During the following two day no observation was possible. Thereafter the two smaller siblings had disappeared.

In both cases, there was now prey in the boxes. Possibly the young were already hungry, when the mother left the brood. In the second case it seems possible that the maltreated young had died and then was eaten.

Even if TAYLOR (1991) could not recognize a significant damage to his barn owl broods by controls and radio-tagging, it nevertheless may injure.

#### Conclusion:

Why did we contribute that? First as propaganda for intensive studies on an owl species. And ringing is a method clearly to prove things. And of course, it meets with the stone-age heritage of most men: It also is hunting (the damages of which obviously remain limited). But indeed there are ladies as well, for whom stone-age heritage and hunting are less motivating, but who nevertheless study intensively.

And though by doing this we produce one or other damage, the results, which may be useful for the protection of barn owls, justify the studies including disturbances. In fact, during our numerous controls we repeatedly had to observe that at a brood the ruin was approaching or just ongoing. Then we fed the young or gave them to foster-parents, often owls, sometimes even humans. Thereby we indeed saved some tens of owls, the end of which we otherwise even would not have realized. There from we indeed derive some peace for our conscience.

#### Summary

KNIPRATH E & STIER-KNIPRATH S 2012: The disadvantages of ringing for the owls.

We did not prove any direct injury caused to the owls by the rings. The ringing itself, i.e. the disturbance connected with it, indeed might have been (co-) causal for 44 of the 107 brood-losses (41 % of the unsuccessful broods, 7.7 % of all broods). On the other hand, we see this as being compensated by the fact that it was only our ringing activity that led us to discover failing broods, so that we were able to save around one tenth of the young owls.

Key words: Barn owl, *Tyto alba*, disadvantage of ringing

#### Literature

ALTMÜLLER R 1980: Eine Methode zum Fang von Schleiereulen (*Tyto alba*). Vogelwarte 30: 333–334

TAYLOR IR 1991: Effects of nest inspections and radiotagging on barn owl breeding success. J. Wildlife Management 55: 312–315