

## "Wanderjahre" in the Barn Owl *Tyto alba*<sup>1</sup>

by Ernst Kniprath

It already caught the attention of SCHNEIDER (1937) that young barn owls do not disperse all years at equal distances. In contrast, occasionally there were years, in which especially many owls dispersed especially far. The subject in 1949 again has been adopted by A SCHIFFERLI. For this phenomenon SAUTER (1955) used the term "Wanderwinter", later then (1956) "Wanderjahr". She defined 1956: "We speak of Wanderjahre, if a particularly high percentage of young birds (about 5 to 6 fold as much as usual) cover distances of more than 100 km." It seemed interesting to study again this phenomenon with the now available, distinctly greater material.

From 1950 to 2008 in the data of the "Vogelwarte Helgoland" we found 8.363 recoveries of barn owls ringed as nestlings. Out of these 1.547 had covered >100 km up to their recovery. Figure 1 shows how these share among their years of ringing. The frequency by ringing-years was chosen under the presumption that the far most greatest proportion of the wandering of the young owls takes place during the first autumn of their lives. In figure 1 it is immediately conspicuous that the gap expected between "normal" proportion of far distance travellers and the 5 to 6 fold amount of the Wanderjahre obviously does not exist. The values oscillate between near zero and almost 50% with a mean of 18,5%. If we assume a "normal" value of about 10% (this already being far to low), then, following the calculation of SAUTER (1956), the Wanderjahre should have a minimum proportion of far distance travellers of 50-60%. None of the 59 years studied here has such a proportion.

Another phenomenon indeed is apparent in the figure: Starting in the 1970ies we may adopt that the proportion of far distance travellers steadily diminished. The period and the persistence of the decrease provokes the assumption that there is a correlation with the constantly increasing efforts since to stop a further decrease of the barn owl numbers by posing nest boxes. Already TAYLOR (1994) wrote that the smaller dispersion distances in his study areas as compared to those in other regions of England could be attributed to the density of nest boxes. So we had one more indication to the factors influencing the dispersion distances in the barn owl. Already KNEIS (1981) had pointed to the first factor, the disposal of prey. He writes, the density of voles influences the dispersion distance: Scarcity forces to travel and to settle at farer distances. This interpretation by KNEIS could also be an explanation for the farer dismigration of young barn owls from regions in England with lesser dense populations, as described by SHAWYER (1998). A lesser dense population indicates a rather scarcer offer of prey.

---

<sup>1</sup> Translation of: KNIPRATH E & STIER-KNIPRATH S 2010: Wanderjahre bei der Schleiereule *Tyto alba*. Eulen-Rundblick 60:

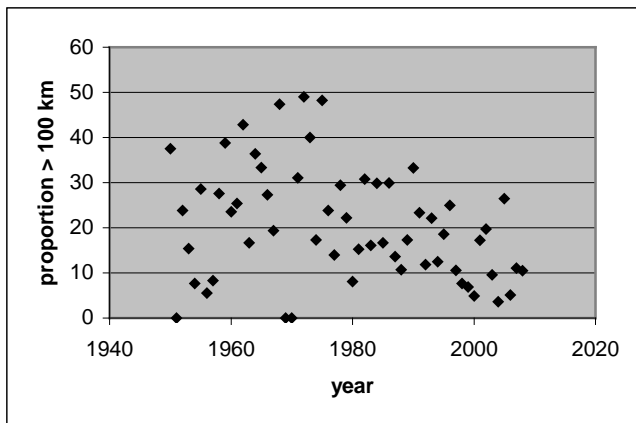


Fig. 1: The proportion (%) of barn owls ringed as nestlings and travelled >100 km from the ringing site after **ringing-years** (N= 8.363)

### Summary

According to recovery data from the Vogelwarte Helgoland, the percentage of Barn Owls *Tyto alba* going on long-distance "travels" (>100 km) is between practically zero and almost 50%, the mean being 18.5%. There is no gap between long-distance travellers and others, so "Wanderjahre" do not exist. The decrease since the 1970s in the proportion of birds making long-distance journeys can be attributed to the increasingly intensive provision of nest boxes for this species.

### Literature

- KNEIS P 1981: Zur Dismigration der Schleiereule (*Tyto alba*) nach den Ringfunden der DDR. Ber. Vogelwarte Hiddensee 1: 31-59
- SAUTER U 1955: Beringungsergebnisse an den Schleiereulen (*Tyto alba*) des Neckarraumes. Jh. Ver. Vaterl. Naturk. Württemberg 109: 153-165
- SAUTER U 1956b: Beiträge zur Ökologie der Schleiereule (*Tyto alba*) nach den Ringfunden. Vogelwarte 18: 109-151
- SCHIFFERLI A 1949: Schwankungen des Schleiereulenbestandes *Tyto alba* (Scopoli). Orn. Beob. 46: 61-75
- SCHNEIDER W 1937: Beringungs-Ergebnisse an der mitteleuropäischen Schleiereule (*Tyto alba guttata* Brehm). Vogelzug 8: 159-171
- SHAWYER C 1998: The Barn Owl. Arlequin Press
- TAYLOR I 1994: Barn Owls. Predator - prey relationships and conservation. Cambridge Univ. Press

<sup>1</sup> Translation from: Ernst Kniprath 2010: Wanderjahre bei der Schleiereule. Eulen-Rundblick 60: 85-86