

The Little Owl: Population Dynamics, Behavior and Management of *Athene noctua*.

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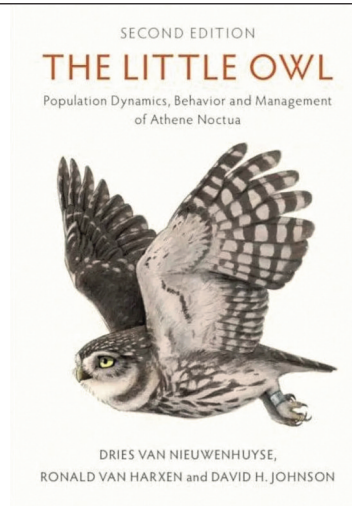
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Van Nieuwenhuysse D., van Harxen R. & Johnson D.H. 2023. *The Little Owl: Population dynamics, behavior and management of *Athene noctua**. Second edition. Cambridge University Press, Cambridge. Hardback, XVIII + 616 pp. ISBN 978-1-009-10015-1. Price €99.



Fourteen years after its first launch, 'Little Owl' re-emerges in a completely revised edition. Much new information is provided, with supplementary material and many appendices/tables from the first edition being relegated to online sources at www.cambridge.org/littleowl. It is a concerted effort to elucidate the life of Little Owls in remarkable detail, combining the field-work of volunteers spanning half a century, scientific research, published sources in a range of languages, lab-work and ingenious mixing of field sketches with digital imaging. The database used throughout the book finds its origin largely in Belgium and The Netherlands, where thousands of nest boxes produce a mountain of standardized and reliable life history information. In The Netherlands alone, almost 33,000 nest records have been submitted for 1971–2023. Similar schemes are run in other parts of Europe as well, enabling comparisons along taxonomic, spatial and temporal lines.

The book follows a stepwise framework to describe the life and times of Little Owls at various scales. The prelude covers history, traditions, fossils, taxonomy and genetics, culminating in a chapter filled to the brim with subspecies about which the last word is clearly not said. (The Little Owl must be splitter's paradise.) For a species with such a large distribution, covering the entire width of the Palearctis including North Africa plus Sahara and the Arabian Peninsula south into

Ethiopia/Somalia, this is no surprise. Nor is the large variety of climate zones (mostly dry and temperate) and habitats occupied (steppe and desert first and foremost, but also those with a heavy anthropogenic stamp) and prey species captured. Knowledge of Little Owls is, however, unevenly distributed across their range, as evident from country-by-country accounts of distribution, population estimates and trends (why a study period of 10 years is considered short-term and 32 years long-term is a mystery; making a distinction is irrelevant anyway, though mentioning the duration of studies most certainly not). Some studies are extremely detailed with decade-long time series (much of Europe), others are rough estimates or just indicative (Asia, Near East, Africa). This bias should be borne in mind when in the rest of the book habitat selection, diet, reproduction, behaviour, survival, population regulation and conservation measures are dealt with. Many studies are from anthropogenic habitats in western Europe, not least in the Low Countries, hardly your average Little Owl population. For example, Belgium and The Netherlands are outliers in a graph where maximum density per European country is regressed against latitude, probably the result of extensive nest box schemes (boosting numbers) and tiny surface areas. Density, by the way, declines by 0.09 pairs per km² per 1000 km increase of latitude (but Figure 5.4 is without numbers on x- and y-axis).

The contribution of volunteers is felt throughout the book, particularly in the chapters describing diet, breeding and behaviour. It is hard to imagine how such large databases and diligently collected observations in the wild could have surfaced otherwise. These are not chance collections (in less thoroughly covered parts of Little Owl's range still many useful studies came to light) but hard-won data using standardized methods in fixed study areas over long periods of time by perceptive observers. The fruits are manifold, hinting at geographical, seasonal, weather-driven, annual, individual and sex- and age-specific variations in diets, clutch and brood size, lifetime reproductive success, dispersal and survival. The use of nest cameras has fine-tuned and validated many results obtained via pellet analyses and visual observation. The next step would be to quantify prey abundance and prey catchability within and between seasons and years, allowing for statements about prey selection. In the words of Frederick Gehlbach ('The Eastern Screech Owl', 1994: 39): "To study foods and predation without concurrent analysis of supply is ... ecologically unrevealing".

The analyses of the huge data collection plus the thorough use of the literature form the backbone for

the last chapters covering population regulation, conservation strategies (evidently with a bias towards western Europe with its dense human population and associated problems of pollution and habitat destruction) and research priorities following from knowledge gaps. It is heartening to see what the combination of enthusiastic volunteers and scientists from all over the world can bring about, in the field and behind the computer. The use of the vast literature in tens of languages gives credit where credit is due. It also shows that restricting oneself to Anglo-Saxon sources is depriving oneself of wonderful material. Kudos to the authors, artist Joris De Raedt and their international Little Owl network. They produced an inspirational work.

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