

THE SUBSPECIFIC STATUS OF THE NEW ZEALAND POPULATION OF THE LITTLE OWL, *Athene noctua* (SCOPOLI, 1769)

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ABSTRACT

Two distinct colour phases of the Little Owl occur in New Zealand. A comparison of a specimen of each with large series of European and British skins shows that the New Zealand birds cannot be separated from either the West German or the English specimens. The status of the subspecies of the Little Owl and their European distribution is given with particular reference to the colour phases present. It is considered futile to ascribe a specific status to the New Zealand population before a thorough revision of the European forms of *Athene noctua* is under taken.

INTRODUCTION

The Little Owl (*Athene noctua*) was first introduced to New Zealand by the Otago Acclimatization Society in 1906. Fourteen birds from a consignment of 28 specimens received from Germany were liberated at Ashley Downs, and the remaining fourteen were liberated at Alexandra (Thomson 1922). Following these first liberations more introductions, all by the Otago Acclimatization Society, were made in 1907 (39 birds), 1908 (80 birds) and 1910 (72 birds) respectively. Thomson did not mention where the subsequent (1907-1910) consignments were received from, but it is commonly assumed that probably all arrived from Germany (Vaurie 1965: 611). Since then Little Owls have firmly established themselves throughout the South Island (except for the high Alpine regions), and several unconfirmed reports of their occurrence in the North Island are known.

Vaurie (1965) under the heading *Athene noctua noctua* mentioned that this race was introduced to New Zealand from Germany and therewith implied that the New Zealand population belongs to, or originated from, the nominate race, *Athene noctua noctua*.

Recently Niethammer (1971) has made an attempt to ascertain the subspecific status of the New Zealand population of Little Owls from specimens actually collected in New Zealand and came to somewhat different conclusions.

THE SUBSPECIES OF *Athene noctua* AND THEIR EUROPEAN DISTRIBUTION

The distribution of the species *Athene noctua* is a very wide one and its range covers more or less the entire Palearctic Zone, excluding the far northern areas (such as the Scandinavian Peninsula and northern Siberia) and Japan. The Little Owl did not naturally breed (although it is known to have occurred on migration) in Great Britain until its introduction in the 19th Century.

Many subspecies of *Athene noctua* have been described, and Peters (1940) lists a total of 21 subspecies including 6 subspecies inhabiting Europe. Vaurie (1965) reduced the above list to 6 subspecies inhabiting the Palearctic Region, and both Witherby *et al.* (1948) and Vaurie (1965) list only 3 subspecies within the European area, i.e. *Athene noctua noctua* (Scopoli, 1769), *A. noctua indigena* Brehm, 1855, and *A. noctua vidallii* Brehm, 1858. The differences between these three subspecies are mainly based on (comparisons of) plumage characters, i.e. the basic colour of the back and head, the degree of contrast of the light spots on the back and head and the intensity of the dark streaking on the undersides. *A. noctua vidallii* is described as being the darkest, *A. noctua noctua* as being the paler and more rufous in colouring (Witherby *et al.* 1948; Bannerman 1955 and Vaurie 1965) and *A. noctua indigena* as being the palest (Witherby *et al.* 1948) and more rufous than the nominate race (Vaurie 1965).

In broad terms the distribution of these three European subspecies can be stated as follows: for *A. noctua vidallii*, Western Europe, including France, Spain and Portugal, for *A. noctua noctua* Central Europe, from Denmark and Germany to Italy and east to Poland and Central Russia. Finally for *A. noctua indigena* South Eastern Europe, including the Balkan Peninsula and Southern Russia. Most European authors agree on the above general distribution. However, widely differing opinions have been published in recent literature concerning the geographical separation (boundaries) between the central and western European subspecies of *Athene noctua*. Peters (1940), Witherby *et al.* (1948), Bannerman (1955) and Vaurie (1965) included Holland and Belgium, as well as France, Spain and Portugal, in the area inhabited by *A. noctua vidallii* and Vaurie, in addition to the above, stated that the two subspecies *A. n. vidallii* and *A. n. noctua* intergrade in Western Germany. All four authors therefore classify the English population as belonging to the western European race *A. noctua vidallii*. Contrary to these opinions, Niethammer *et al.* (1964), in the Checklist of the birds of Germany, lists only *A. noctua noctua* as occurring in Germany, and the Commissie voor de Nederlandse Avifauna (1962) and Hens *et al.* (1962), came to the conclusion that the population of Little Owls inhabiting Holland also belong to the nominate race, i.e. *A. noctua noctua*. If this is so, the present accepted classification of the English population is questionable, as most of the introductions of Little Owls to England

were made with birds originating from Holland, and the first birds introduced to England in 1843 originated from Italy (Niethammer 1963: 289).

COMPARISONS OF NEW ZEALAND SPECIMENS WITH EUROPEAN SERIES

Within the New Zealand population two distinct colour phases can be separated, i.e. a dark brown form and a paler brown form. No rufous colouring in New Zealand has, up to the present, come to the notice of the writer. To enable comparisons of New Zealand specimens with European and British series, the writer took two study skins (one of each colour phase) to Europe during 1970. These were compared with large series of *Athene noctua* in the Alexander König Museum in Bonn, Western Germany, and in the British Museum (Natural History), London, with the following results.

- A. A large series of specimens of *Athene noctua noctua* studied in Bonn consisted entirely of specimens collected in Western Germany. In addition smaller series from France, Holland, Italy and Portugal were present, which enabled comparisons between West German and other Western European populations. It was found that within the West German series of Little Owls three distinct colour phases could be separated easily. These were dark brown, paler brown and rufous. The two New Zealand birds on hand, as to general colour, fitted well within the two true brown colour phases and could not be distinguished from these except by their labels. In addition, no differences in colour were found between the darker of the New Zealand and West German birds, and several specimens of the series of Portuguese birds, which were identified as typical *A. noctua vidalli*.
- B. The second series to be investigated was the large series of British Little Owls, labelled as *A. noctua vidallii*, in the British Museum (Natural History), London. Two colour varieties were separable in this series, i.e. a dark brown and a paler phase. Comparing the two New Zealand specimens with these two colour phases, it was found that neither of the specimens was distinguishable from the two respective colour phases of the British birds. In fact, the only difference between the specimens in the German series (Bonn) and the British series (London), was that in the latter, one of the distinctive colour phases of the nominate race, i.e. the rufous one was not represented. This might indicate that the rufous colour phase, so common within the nominate race on the Continent, does not occur in England.

Bannerman (1955), although not mentioning that rufous colouring does not occur in the British population of Little Owls, made the following statement: "If a very rufous-plumage specimen should be found in England it would be unsafe to jump to the conclusion that it had come from middle Europe."

Also in the collections of the British Museum (Natural History) there is a good series (26 specimens) of *A. noctua vidallii*, which originated from Spain. From this series it was evident that even in this race described as being the darkest of the races of *Athene noctua* by Vaurie (1965), striking variations in colour occur. Fourteen of the specimens in this series showed the dark brown colouring typical for the western subspecies (*A. noctua vidallii*). However, the remaining 12 specimens (i.e. 1/3 of the series) were much paler. Some of these were similar to the paler phases found in the British and German series, but others were paler again, in fact much paler than any of the palest *A. noctua* encountered either in the German or in the British series. Bannerman (1955: 201) summed up this confused situation very reasonably by the following statement: "Owls more than most birds exhibit a variety of colouring which cannot always be correlated with geographical distribution, and the little owl has suffered through being split up into a number of races on not too reliable characters."

THE STATUS OF THE NEW ZEALAND POPULATION

Comparisons of New Zealand specimens with West German series and with British series of Little Owls, showed that New Zealand birds cannot be separated from either West German nor from English specimens. The only exception is the apparent absence of the rufous colour phase, so common in West Germany, which does not seem to occur either in England or in New Zealand.

However, Niethammer (1971) mentioned very dark specimens, similar to the western European race (*A. noctua vidalli*) occurring exceptionally in the Rheinland and in Westfalia, and therewith he agreed with Vaurie's (1965) statement, that the two subspecies *A. n. noctua* and *A. n. vidalli* intergrade in the westernmost parts of West Germany. Niethammer (1971: 221, 223) also noticed the two distinct colour phases occurring in New Zealand, and therefore expressed the opinion that all Little Owls introduced to New Zealand during the early part of this century probably originated from western Germany. From the small series of New Zealand specimens available to him for study, he found it difficult to make a decision on the taxonomic status of the New Zealand population ("Bei dieser Sachlage ist eine Zuordnung der Neuseeländer besonders schwierig"). Nevertheless he implied that both subspecies, *A. n. noctua* and *A. n. vidalli*, occur in New Zealand ("Neuseeland *Athene noctua* *vidalli* \cong *noctua*").

In the present writer's opinion the differences between the two above subspecies are so small and geographically overlap to such a degree, that identification of individual specimens is not only often exceedingly difficult, but in many instances is impossible. The writer agrees with Bannerman (1955) that the characters, as described, "cannot be correlated with geographical distribution," and believes that

it is futile to ascribe a subspecific status to the New Zealand population before a thorough revision of the European forms of *Athene noctua* is undertaken.

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