Brief reports · Tiedonantoja

Age determination of breeding Ural Owls *Strix uralensis*

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In every population study of some depth, it is essential to know the age of the individuals studied as accurately as possible. This is particularly important in long-lived animals, such as certain birds. A number of birds are ringed as nestlings, but a problem is posed by unringed breeding birds. Although these are generally first-time breeders, their age can still be difficult to determine. For example, Ural Owl females may breed for the first time in their 2nd or 3rd spring, but usually they do not start before their 4th or 5th spring.

Here we present criteria for identifying three age classes of Ural Owls. As in waterfowl (Salminen 1983), raptors (Forsman 1984) and passerines (Svensson 1984), the moulting pattern provides a key to the age of owls as well. In the postjuvenal moult, the Ural Owl does not lose its remiges, rectrices or primary coverts (Glutz von Blotzheim & Bauer 1980). The first, generally incomplete (Pietiäinen et al. 1984), moult of the flight feathers starts in the second summer. Different feather generations can be distinguished on the basis of their colour: the worn older-generation feathers are brownish in contrast to the greyish new feathers.

In the following key we refer to spring birds, because Ural owls are most easily trapped during the period from early incubation to the late nestling stage.

2nd year. The most useful diagnostic feature is the shape of the white spots on the leading edges of the outer primary coverts (Fig. 1). In second-year birds, these spots are almost rounded, but in older individuals they are nearly square (bars).

If there are distinct growth-bars in the secondaries, these are at equal distances from the feather tip in all feathers.

3rd year. The first moult of the flight feathers is incomplete, and the birds retain some of their juvenile feathers, especially the secondaries, which are also best for identifying purposes. The juvenile secondaries are narrower and their tip is more pointed than in the second-generation feathers (Fig. 2). Be careful to compare the shape only among the secondaries! The dark subterminal bars of the juvenile feathers may also be somewhat narrower than in the second-generation feathers. If the juvenile feathers have growth-bars, these are not in phase with the second-generation feathers.

4th year or older. Different feather generations can generally be distinguished in the primaries or secondaries on the basis of their colouring, but the secondaries of different generations have the same shape.

If all the feathers belong to the same generation (or different generations cannot be distinguished), and the primary coverts exclude the possibility of 2nd-year birds, the correct determination is 3rd year or older (3y +).

In our experience, this method is suitable for the Tawny Owl *Strix aluco*, too, as far as the shape and colour of the feathers are concerned.

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Selostus: **Viirupöllöjen iän määrittäminen**

Viirupöllöjen, kuten muidenkin lintulajien, iän määrittäminen perustuu sulkasadon kulun tuntemiseen. Viirupöllöjen postjuvenaalisessa sulkasadossa jäävät vaihtumatta iän määrittämisen kannalta tärkeät siipisulat ja käsisulkien peitinhöyhenet. Seuraavassakin sulkasadossa jää tavallisesti vaihtumatta muutama kyynärsulka. Eri ikäiset sulkasuku-

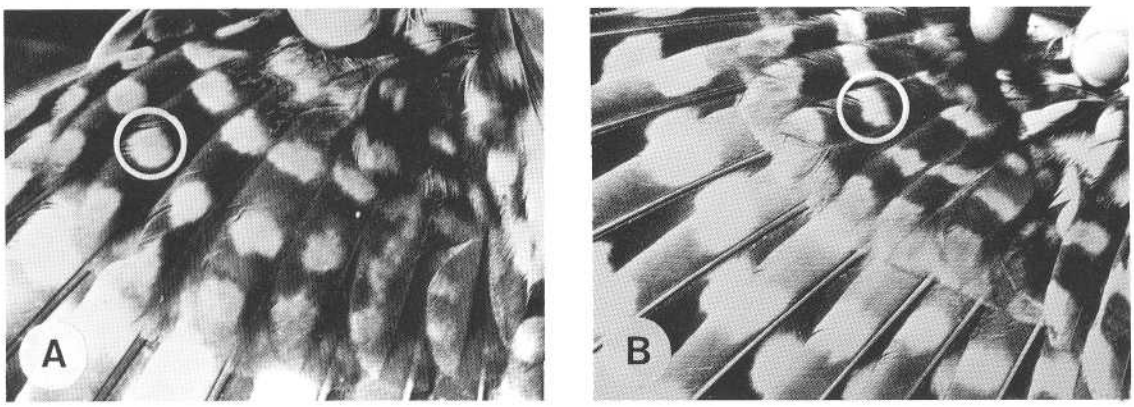

Fig. 1. Primary coverts of a 2nd-year (A) and an older (B) individual. Note the difference in shape of the white spots (circle).

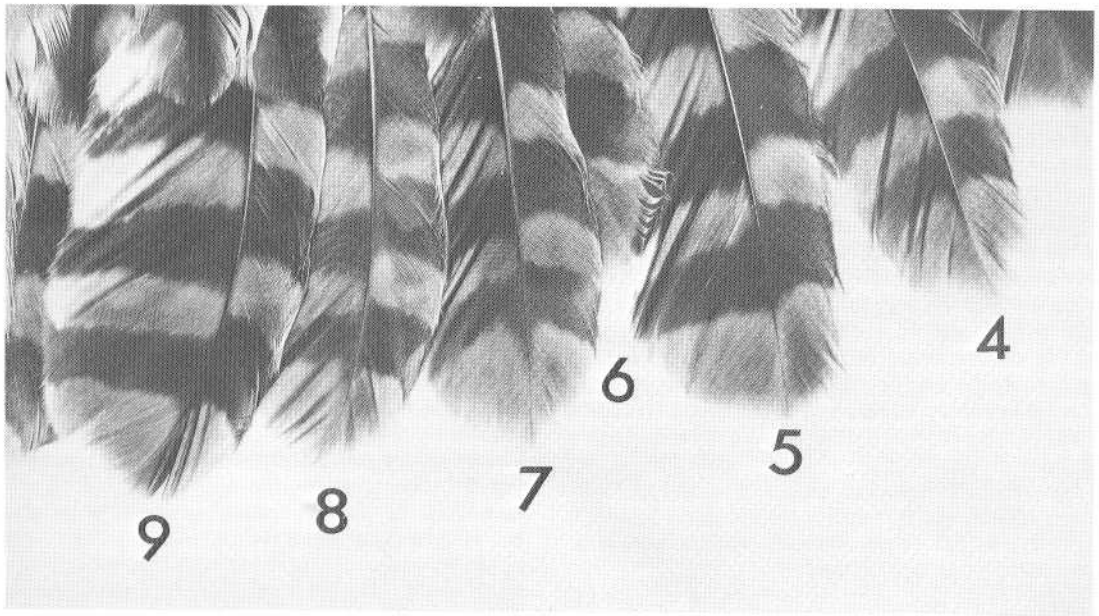

Fig. 2. Wing of Ural Owl D-94682 in the first wing-feather moult (2nd year). Secondaries 4, 7 and 8 (see numbers in figure) belong to the juvenile feather generation. Note the difference in the shape of the tip between these juvenile feathers and secondaries 5 and 9 (feathers of second generation). The subterminal bars are somewhat narrower in the juvenile than in the new feathers. The 2nd, 3rd and 6th secondaries are still growing.

polvet voi erottaa värisävyn perusteella: kuluneet vanhat sulat ovat rusehtavia, uudet sulat ovat harmahtavia.

2-KV. Paras tuntomerkki on ulommaisten käsisulkien peitinhöyhenten ulkohöydyn vaaleiden täplien muoto (kuva 1). 2-KV linnuilla ne ovat pyöreähköjä ("helmipöllötäpliä), vanhemmilla suorakaiteen muotoisia.

Jos kyynärsulissa on selviä kasvujuovia, nämä ovat kaikki samalla etäisyydellä sulan kärjestä.

3-KV. Tämän ikäisillä yksilöillä on vielä jäljellä muutamia nuoruuspuvun kyynärsulkia. Ne ovat kapeampia ja teräväkärkisempiä kuin seuraavan sukupolven tuoreet sulat. Kyynärsulkien tummat subterminaalijuovat ovat nuoruuspuvun sulissa kapeampia kuin seuraavan sukupolven sulissa (kuva 2).

Nuoruuspuvun sulat voivat erottua tuoreemmista myös kasvujuovien perusteella: jos uusissakin sulissa niitä on, ne ovat kuitenkin eri etäisyydellä sulan kärjestä.

+ 3-KV. Käsi- ja kyynärsulista voi värien perusteella erottaa eri ikäluokat. Kyynärsulat ovat kuitenkin saman pituisia ja muotoisia. Jos kaikki sulat ovat (tai ne vaikuttavat siltä) saman ikäisiä ja käsisulkien peitinhöyhenet viittaavat vanhaan lintuun, on oikea ikämääritys + 2-KV.

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