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## Warblers of reedbeds, marshes and bush

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Numerous 'reedbed warblers' were caught in and at the edge of reed mace *Typha* beds at Phakalane Sewage Ponds near Gaborone between 1996 and 2000. Three species of resident/partial migrant and five species of Palearctic migrants were caught. This paper gives some pointers towards the identification, ageing and sexing of several species that inhabit reeds and marsh vegetation.

1. *Bradypterus baboecala*, the Little Rush (African Sedge) Warbler
2. *Locustella fluviatilis*, the River Warbler
3. *Acrocephalus* warblers: slender, mainly brown, birds with flattened heads. They inhabit

The wing formula is very important in identification of 'reed' warblers. Particularly important features are the presence or absence of emargination on any primary feathers and of any notch; the length of the first and second primary feathers in relation to the primary coverts and wing tip; and the shape of the wing as shown by the difference between each primary feather and the longest feather.

### 1. BRADYPTERUS BABOECALA

- Dark brown upperparts
- Broad tail feathers, strongly graduated very long tail
- Rounded wing (length 56–61 mm)

- Faintly spotted/streaked breast
- Immature has yellowish wash and three good tongue spots; adult has black gape.

### 2. LOCUSTELLA FLUVIATILIS

- Olive brown upperparts
- Graduated tail with under tail coverts broadly tipped white
- Wing formula. Very small first primary, no emargination on primaries, pointed wing, wing length 69–79 mm
- Spotted/streaked breast.

### 3. ACROCEPHALUS WARBLERS

#### A. *schoenobaenus* European Sedge Warbler

- Conspicuous yellow/white supercilium (no crown stripe; compare with Aquatic Warbler *A. paludicola*)
- Rufous-tinged yellow/brown rump
- Moderately rounded tail
- Pointed wings (63–72 mm), first primary < primary covert, tip = third primary (or second)
- Young birds have streaked/speckled breast.

#### A. *baeticatus* African Reed Warbler

Also known as African Marsh Warbler but most closely related to the Eurasian Reed

Warbler with which it forms a superspecies. Vocalisations similar to Eurasian Reed Warbler.

- The smallest *Acrocephalus* with wing of 56–65 mm. Slight overlap with *scirpaceus*: second primary significantly shorter than third
- Warm brown plumage, almost rufous on flanks in fresh adult; more buffy in juveniles
- Gape pale yellower in immatures; compare yellow-orange gapes of adult.

### **A. gracilirostris** Lesser Swamp (Cape Reed) Warbler

- Rufous upperparts and dark legs
- More rounded wings than Palaearctic migrant species, with long first primary, wing 64–78 mm. Female smaller 64–69, male 71–78, but beware eastern coastal race which is slightly larger
- Slightly graduated tail cf. *Bradypterus baboecala*
- Young birds have good black tongue spots
- Young have yellower gapes (orange-red in adults)
- Young have buffer upperparts.

### **A. arundinaceus** Great Reed Warbler

- Largest *Acrocephalus*: with wing 89–103 mm (female smaller but large overlap)
  - Wing formula: short first primary < primary covert, tip = third primary, 2 = 3/4, 4 or 4/5)
  - 2 races: *zarudnyi* paler/greyer than nominate race, tinged olive on lower back/rump
- Compare Olivetree Warbler *Hippolais olivetorum*, large, grey warbler with white outer tail feathers and pale wing panel in young birds.

### **A. griseldis** Basra Reed Warbler

- Similar to *arundinaceus* but smaller wing: 77–78 mm
- Long bill with narrow tip
- RARE.

### **A. scirpaceus** European Reed Warbler

- Larger than *baeticatus*; wing 62–72 mm
- Olive-brown upperparts with more rufous rump
- 2 races: nominate warmer and *fuscus* greyer olive-brown but beware faded worn plumage in October–December
- Previously regarded as rare in southern Africa though some may have been overlooked or misidentified as *A. baeticatus*
- Very difficult to distinguish from *palustris* in hand, so need to use and carefully measure a combination of characteristics – notch length, wing tip, bill width/length, tarsus length, claw colour, Walinder score, inner and total footspan, etc. (see below).
- First-years early in summer show dark tongue spots.

### **A. palustris** European Marsh Warbler

- Greenish olive-brown upper parts (adult), rump not rufous
- Beware worn faded plumage (worn *palustris* looks like *fuscus*)
- First-year bird more like *scirpaceus*
- Check combination of characteristics as above.

### **Separation of Eurasian Reed and Marsh Warblers**

#### *Wing length*

- Reed: 61–76 mm
- Marsh: 64–76 mm

#### **NB Plenty of overlap.**

#### *Notch length on second primary (notch to tip)*

- Reed: adult 11–15 mm, first-year 9.5–13.5 mm (longer notch)
- Marsh: adult 8.5–12 mm, first-year 7.5–11 mm (shorter notch)

*Notch on P2 relative to tips of other primary (wing closed)*

- Reed mostly = 8/9–10/ss
- Marsh mostly = 6–8/9

**NB Some overlap.**

*Measure distance from first secondary to tip of wing*

- Reed = 15–19 mm
- Marsh = 17.5–22 mm

*Alternatively measure 10th primary short-fall (distance from P10 to tip)*

- Reed = 12–17 mm
- Marsh = 15–18 mm

*Walinder Score*

1. Measure length of bill from tip to skull (A).
2. Measure width of tarsus (B).
3. Measure width of bill just above nares (C).
4. Multiply B × C (D) and do sum A + D.
5. If final product = 4.5–8 bird is a Marsh Warbler:
6. If final product is 8.5–12.5, bird is a Reed Warbler.

*Notch/Wing ratio (divide notch length on primary 2 by maximum wing length)*

- Reed: adult = 0.17–0.23; 1Y = 0.14–0.12
- Marsh: adult = 0.12–0.16; 1Y = 0.11–0.16

**NB Overlap.**

*Footspan*

- Marsh has shorter toes and claws: inner footspan excluding claws 16.2–17.7 mm, including claws 24–26 mm, total span + claws = 30.3–33.2 mm (Leisler).
- Pearson: Reed inner footspan = 17.5–21 mm, Marsh 16–18.5 mm.

*Claw colour*

- Reed: dark grey brown above, contrasting to yellowish underside
- Marsh: light grey brown with only slight contrast to yellowish underside

**Pearson did not find this a useful distinguishing characteristic.**

*Bill length/width ratio (Pearson)*

Measure width at nares and length from rear of nares. Reed has longer bill cf. shorter, broader bill of Marsh:

- Reed: W = 3.7–4.8; L = 9.9–12.5 mm
- Marsh: W = 4.0–5.1; L = 8.8–11 mm

Ratio (Length/width):

- Reed: 2.3–3.1
- Marsh: 2.0–2.4

**L–2W in Reed = 1.5–4.3, in Marsh = –0.2–1.9**

Whilst young birds can be identified by plumage features and often by the presence of tongue spots, sexing in those species where there is no difference in wing length is difficult. Eurasian (Palearctic) migrants cannot be sexed in the non-breeding season but breeding female African Reed, Little Rush and Lesser Swamp Warblers show a good brood patch. The shape of the cloacal protuberance should be useful in separating males from females, as in Eurasian species during the breeding season.

## TWO USEFUL REFERENCES

- Pearson, D.** 1989. The separation of Reed Warblers *Acrocephalus scirpaceus* and Marsh Warblers *A. palustris* in eastern Africa. *Scopus* 13: 81–89.
- Svensson, L.** 1992. Identification guide to European passerines. 4th ed. Stockholm: British Trust for Ornithology, UK.