

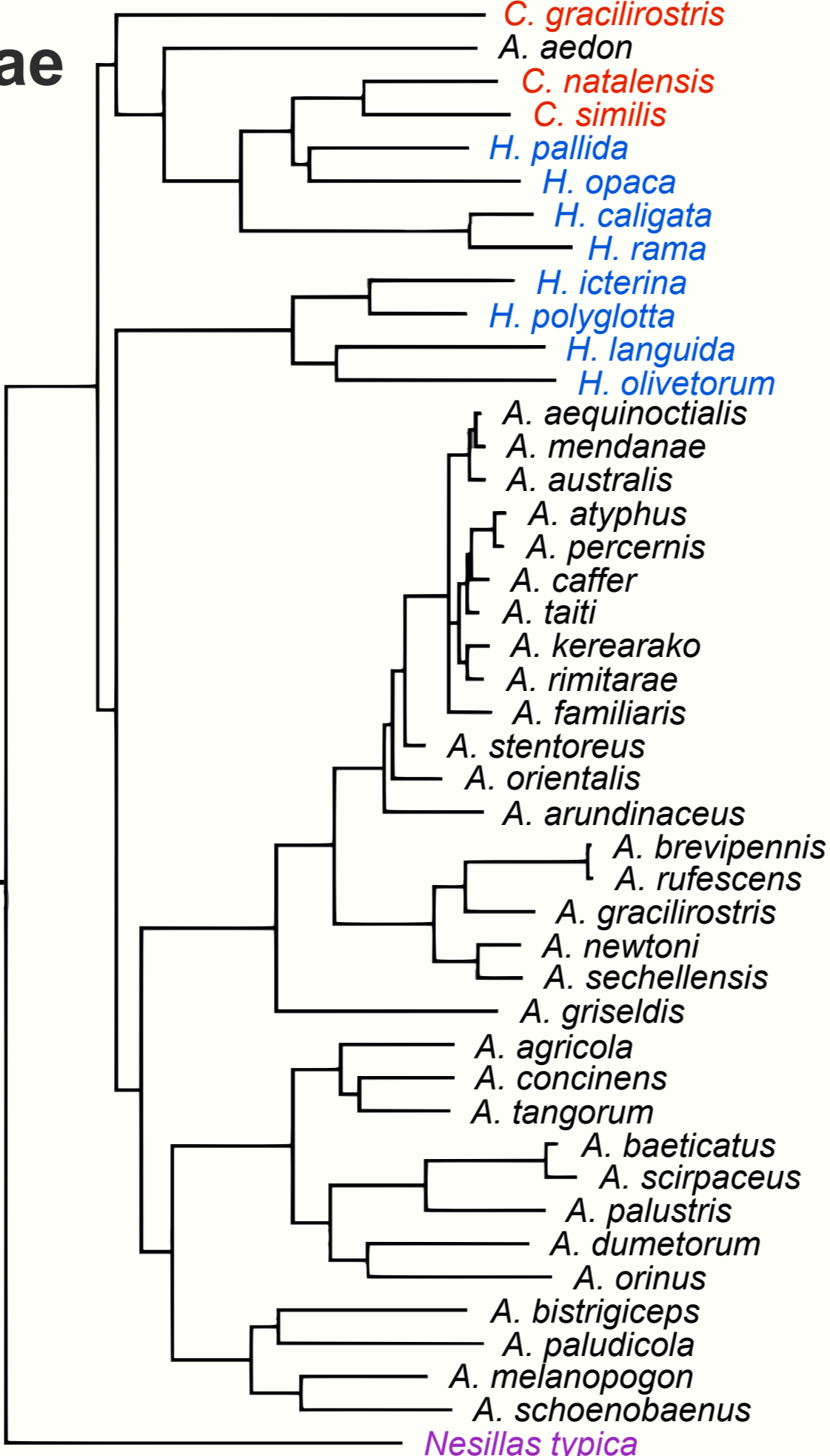
Acrocephalidae

Non-monophyletic genera

Conservative morphological evolution – some notable exceptions

Fregin et al. 2009. *Molecular Phylogenetics and Evolution* 52: 866–878.

Paintings: Brian Small. From Kennerley & Pearson. 2010. *Reed and bush warblers*. London: Christopher Helm

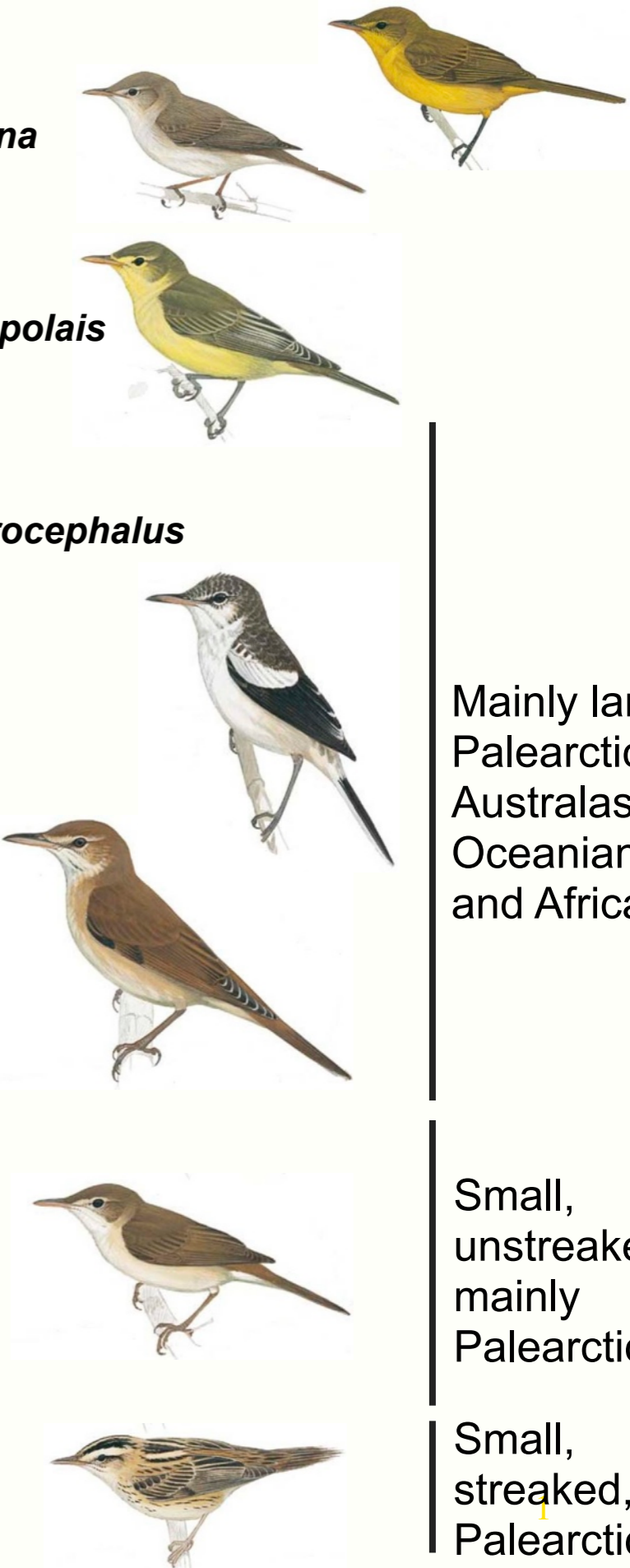


Calamonastides

Iduna

Hippolais

Acrocephalus



Mainly large, Palearctic to Australasian/Oceanian, and African

Small, unstreaked, mainly Palearctic

Small, streaked, Palearctic

Unexpected relationships within the family Acrocephalidae

The family Acrocephalidae comprises four genera, of which *Acrocephalus* is the largest. We used mitochondrial and nuclear DNA to infer the relationships of most of the species in three of these genera. All of them were suggested to be non-monophyletic (i.e. one or more of the species in a genus are more closely related to species in another genus).

All of the species in the genus *Acrocephalus* were found to be closely related, except for the east Asian *Acrocephalus aedon*, which was inferred to be more closely related to a group comprising two African *Chloropeta* species and four mostly Palearctic-breeding *Hippolais* species. The third *Chloropeta* species (also African) was indicated to be sister to these, whereas the four other *Hippolais* species (breeding in the Palearctic) were in a separate group. The only species of *Nesillas* included in the analysis was sister to the three other genera. It should be noted that the relationships among these groups were not strongly supported by the data.

The *Acrocephalus* species were inferred to be separated into one group containing rather small, mainly Palearctic species and one group with mostly larger species with a widespread distribution from Africa to Australasia/Oceania.

We proposed a slightly modified classification (see figure).

Within the main *Acrocephalus* group, the plumage variation is rather slight, although there are some notable exceptions, especially on some Pacific islands, where the plumage variation is dramatic. Also, most of the species in one of the two subgroups of small species are streaked, at least above.

The “*Acrocephalus* plumage type” is found not only within the genus *Acrocephalus*, but also in other groups in the family Acrocephalidae. Similarly, green and yellow plumages have apparently evolved independently in different lineages.

Fregin, S., Haase, M., Olsson, U. & Alström, P. 2009. Multi-locus phylogeny of the family Acrocephalidae (Aves: Passeriformes) – the traditional taxonomy overthrown. *Molecular Phylogenetics and Evolution* 52: 866–878.