Taxonomic recommendations for British birds: seventh report

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This paper is the seventh report of the Taxonomic Sub-Committee (TSC) of the BOU Records Committee (BOURC) relating to the British List. Species-level decisions are based on criteria outlined by Helbig et al. (2002). The sixth report of the Sub-Committee was published by Sangster et al. (2010a).

The Sub-Committee has been working with the Association of European Rarities Committees’ Taxonomic Advisory Group, which has recently published recommendations online (Crochet et al. 2010). The reports of the BOURC and its TSC, which are published in Ibis, remain the official publications of the BOU.

Capped Petrel [Black-capped Petrel] Pterodroma hasitata

Capped Petrel and Bermuda Petrel differ diagnostically in pattern and coloration of crown, hindneck and rump, and uppertail-coverts (Brooke 2004, Howell & Patteson 2008). Molecular phylogenetic analysis further suggests that these are not closely related taxa (Jesus et al. 2009). Capped Petrel and Bermuda Petrel are therefore best treated as separate species:

• Capped Petrel Pterodroma hasitata (polytypic)
• Bermuda Petrel Pterodroma cahow (monotypic)

Capped Petrel is in Category A of the British List.

Water Rail Rallus aquaticus

Recent vocal and molecular studies indicate that Water Rail consists of two distinct lineages (de Kroon et al. 2008, Tavares et al. 2010). Two main call types have been recorded for Rallus aquaticus aquaticus: a long and complex call (the ‘pig squeal’), and a short and simple call, both repeated in series, whereas for Rallus aquaticus indicus, only a complex call type has been recorded, which is distinct from that of R. a. aquaticus (de Kroon et al. 2008). Preliminary playback experiments showed a lack of response of R. a. aquaticus to the complex calls of R. a. indicus, suggesting a biological significance for these differences (de Kroon et al. 2008). Phylogeographical analysis of mitochondrial and nuclear DNA sequences places R. a. indicus in a separate clade from the clade containing R. a. aquaticus and Rallus aquaticus korejewi, and further showed that these clades are strongly differentiated (Tavares et al. 2010). The two groups also differ in plumage (Cramp & Simmons 1980, de Kroon 1991, Taylor & van Perlo 1998). Water Rail is therefore best treated as two species:

• Water Rail Rallus aquaticus (polytypic, with subspecies aquaticus and korejewi)
- Brown-cheeked Rail *Rallus indicus* (monotypic)
  Water Rail is in Category A of the British List.

**Kentish Plover *Charadrius alexandrinus***

A recent study has documented morphological, molecular and vocal differences between Kentish Plover *Charadrius alexandrinus alexandrinus* and Snowy Plovers *Charadrius alexandrinus nivosus* (Küpper *et al.* 2009). Kentish Plovers have longer wings and tarsi than Snowy Plovers, although there is overlap of measurements. Female Snowy Plovers can have various amounts of black in the head- and breast-markings, sometimes making them similar to those of males, whereas in female Kentish Plovers these areas are brown. Chicks of Kentish Plover have a dark central stripe on the upperparts, which is lacking in Snowy Plovers. Mitochondrial DNA sequences (ND3 and ATPase) of Kentish Plover and Snowy Plover differ by 6.1% on average. Mitochondrial DNA sequences and CHD-Z genotypes were more divergent between Kentish and Snowy Plovers than between Kentish and White-fronted Plovers *Charadrius marginatus*. Finally, male courtship calls of Kentish and Snowy Plovers may also differ (Küpper *et al.* 2009).

The plumage characters and nomenclature of the East Asian White-faced Plover *Charadrius alexandrinus dealbatus* have recently been clarified (Bakewell & Kennerley 2008, Kennerley *et al.* 2008). White-faced Plover is retained here as a subspecies of Kentish Plovers pending ongoing studies.

Kentish Plover is best treated as two species:
- Kentish Plover *Charadrius alexandrinus* (polytypic, with subspecies *alexandrinus*, *seebohmi*, *nithonensis* and *dealbatus*)
- Snowy Plover *Charadrius nivosus* (polypygic, see Funk *et al.* 2007)

Kentish Plover is in Category A of the British List.

**Whimbrel *Numenius phaeopus***

Hudsonian Whimbrel *Numenius phaeopus hudsonicus* is separable from Eurasian Whimbrel *Numenius phaeopus phaeopus* on the basis of diagnostic differences in plumage and mean morphometric differences (Hayman *et al.* 1986, Englemoer & Roselaar 1998). Hudsonian Whimbrel shows marked divergence in mitochondrial DNA sequences (around 3.6% sequence divergence in the CO1 gene) from Eurasian Whimbrels in Scandinavia (*N. p. phaeopus*; Johnsen *et al.* 2010) and Eastern Asia (*Numenius phaeopus variegatus*; Kerr *et al.* 2009), comparable with other pairs of sister species. We have combined the datasets of Hebert *et al.* (2004), Yoo *et al.* (2006), Kerr *et al.* (2009) and Johnsen *et al.* (2010) and performed phylogenetic analyses to determine how Eurasian Whimbrels in Scandinavia are related to those in Eastern Asia. Mitochondrial DNA sequences of Hudsonian Whimbrel clustered with strong support in a clade that is sister to a clade formed by Eurasian Whimbrels, but Scandinavian *phaeopus* and Eastern Asian *variegatus* samples were very similar and did not form separate clades (Fig. 1). *Numenius phaeopus alboaxillaris* has not been included in any molecular analyses but is presumed to be allied to the *phaeopus/variegatus* clade on geographical grounds. It is recommended that *hudsonicus* is treated as a separate species.
- Hudsonian Whimbrel *Numenius hudsonicus* (monotypic)
- Eurasian Whimbrel *Numenius phaeopus* (polytypic, including subspecies *phaeopus*, *alboaxillaris* and *variegatus*)

Other subspecies of both Eurasian and Hudsonian Whimbrel have been proposed by Englemoer and Roselaar (1998) and Tomkovich (2008) which may deserve recognition. Eurasian Whimbrel and Hudsonian Whimbrel are both in Category A of the British List.

**Great Skua *Stercorarius skua***

Relationships of *Stercorarius skua* are uncertain. Mitochondrial DNA analyses have suggested that *S. skua* is more closely related to *Stercorarius pomarinus* than to taxa breeding in the southern hemisphere (Bleichschmidt *et al.* 1993, Cohen *et al.* 1997, Ritz *et al.* 2008, but see Braun & Brumfield 1998), whereas analyses of morphology and ectoparasites support monophyly of the ‘great skuas’ (Andersson 1999a, 1999b, Chu *et al.* 2009).

As well as genetic differences from southern hemisphere skuas, Great Skua differs from all other skuas in plumage at most ages (Furness 1987, Malling-Olsen & Larsson 1997). Among the southern skuas, Chilean Skua *Stercorarius skua chilensis* and South Polar Skua *Stercorarius skua maccormicki* are well differentiated on the basis of morphology from Brown Skua taxa, *Stercorarius skua antarcticus, Stercorarius skua hamiltoni* and
Stercorarius skua lonnbergi (Furness 1987, see also Hospitaleche et al. 2009). Chilean, Brown and South Polar Skuas are also significantly differentiated from each other in mitochondrial control region sequences (Ritz et al. 2008). In addition, sympatrically breeding Brown and South Polar Skuas differ significantly in several long call parameters (Pietz 1985) and further differ in ecological and reproductive traits (Pietz 1987, Ritz et al. 2006, Hahn et al. 2007). However, mtDNA of none of the southern taxa is reciprocally monophyletic with respect to each other (Ritz et al. 2008). South Polar Skua overlaps with Brown Skua on the Antarctic Peninsula, where the two taxa form a 500-km-wide hybrid zone (Ritz et al. 2006). Within this zone, reproductive success of mixed pairs is higher than that of pure Brown Skua pairs but similar to that of pure South Polar Skua pairs (Hahn et al. 2003, Ritz et al. 2006). Mixed pair formation (and mitochondrial gene flow) is asymmetric, most likely due to a combination of much lower numbers of Brown Skuas than South Polar Skuas and differences in arrival time between species and sexes in the contact zone (Parmalee 1988, Hahn et al. 2003, Ritz et al. 2006). Mating patterns in a mixed colony of King George Island indicate that heterospecific pairs are about three times less numerous than expected if mating was random, showing strong assortative mating (Ritz et al. 2006).

We recommend that at least four species are recognized in the great skua complex but acknowledge that further field and molecular studies are warranted to firmly establish the taxonomic status of the southern skua taxa:

- Great Skua Stercorarius skua (monotypic)
- Brown Skua Stercorarius antarcticus (polytypic, with subspecies hamiltoni, lonnbergi and antarcticus)
- Chilean Skua Stercorarius chilensis (monotypic)
- South Polar Skua Stercorarius maccormicki (monotypic)
Great Skua is in Category A of the British List. Two individuals, one from the Isles of Scilly (Cornwall) and one from Glamorgan in 2001/2002, have been accepted as being of one of the southern skua taxa, but have not yet been identified to species (Votier et al. 2004, 2007).

**Sandwich Tern Sterna sandvicensis**

Molecular phylogenetic analyses based on concatenated mitochondrial and nuclear DNA sequences indicate that *Sterna sandvicensis acuflavida* and *Sterna sandvicensis eurygnatha* are more closely allied to Elegant Tern *Sterna elegans* than to the European *Sterna sandvicensis sandvicensis* (Efe et al. 2009). An analysis based on CO1 sequences, with more individuals of each taxon, also recovered this pattern and identified several diagnostic substitutions for each clade. Garner et al. (2007) reported several differences between *S. s. sandvicensis* and *S. s. acuflavida* in juvenile plumage, first winter plumage, first summer plumage, adult winter plumage and adult summer plumage, and some of these may be diagnostic. Cabot’s Tern is best recognized as a separate species:

- Cabot’s Tern *Sterna acuflavida* (polypytic, with subspecies *acuflavida* and *eurygnatha*)
- Sandwich Tern *Sterna sandvicensis* (monotypic)

Cabot’s Tern and Sandwich Tern are both in Category A of the British List.

**Guillemot [Common Murre] Uria aalge**

Three subspecies of Guillemot are currently recognized in the North Atlantic (Cramp 1985):

- *hyperborea* – Norway north of c. 69°N, coast of Murmansk, Bear Island, Spitsbergen and Novaya Zemlya
- *aalge* – eastern Canada, Greenland, Iceland, Faeroes, Scotland north of c. 55°38’N, Baltic and Norway north to c. 69°N
- *albionis* – Britain south of c. 55°38’N, Ireland, Helgoland, Brittany and western Iberia.

Nominate *aalge* and *albionis* are on the British List; *albionis* breeding north to Ailsa Craig, Sandy and Mull of Kintyre in the west (Harris & Wanless 2007) and Northumberland in the east, and nominate *aalge* to the north of this (BOU 1971).


There is no apparent break or step in the plumage, morphometric or genetic cline between populations currently placed in the subspecies *aalge* or *hyperborea* sufficient to justify the continued retention of *hyperborea* and, despite the substantial differences between populations at the ends of the cline, it is recommended that *hyperborea* be treated as a synonym of *aalge*.

Some birds hatched within colonies of *albionis* may be found within colonies of *aalge* (and vice versa; Harris & Swann 2002, Harris & Wanless 2007, M. Harris in litt., S. Wanless in litt.). In the absence of quantitative information on the cline in plumage coloration between *albionis* and *aalge*, but with apparently pronounced differences in upperpart colour (Cramp 1985), the subspecies *albionis* is retained for now.

**Tufted Puffin Lunda cirrhata**

Phylogenetic analyses of mitochondrial DNA sequences (Moum et al. 1994), combined mitochondrial DNA and allozyme data (Friesen et al. 1996), and combined mitochondrial and nuclear DNA sequences (Pereira & Baker 2008) provide congruent evidence that Tufted Puffin *Lunda cirrhata* is sister to *Fratercula arctica* and *Fratercula corniculata*. The genetic and morphological divergence between *cirrhata*, *arctica* and *corniculata* is typical of divergence among congeneric species in other genera of Alcidae. Recognition of a monotypic genus for Tufted Puffin is not warranted; Tufted Puffin is placed in *Fratercula* and becomes *Fratercula cirrhata*. The British species of puffins should be listed in the following sequence:

- Tufted Puffin *Fratercula cirrhata*
- Atlantic Puffin *Fratercula arctica*

**Sand Martin Riparia riparia**

Sand Martins (*riparia* group) and Pale Martins (*diluta* group) show diagnostic differences in the coloration of the upperparts and breast-band, and
further differ in the degree of tarsal feathering, bill shape, depth of the tail fork, throat colour and alarm calls (Goroshko 1993). The two groups have widely overlapping breeding ranges in central Asia, yet colonies consist of either only one of the groups (Gavrilov & Savtchenko 1991, Goroshko 1993) or both groups but no mixed pairs (L. Svensson unpubl. data). The two groups appear to have different habitat preferences in the zone of overlap: Sand Martin nests closer to rivers or other fresh water sources, whereas nesting colonies of Pale Martin are in arid steppe (Goroshko 1993). Mitochondrial (ND2) and nuclear (MUSK) gene trees of Common and Pale Martins sampled within and outside the overlap zone are reciprocally monophyletic and mitochondrial DNA sequence divergence of the two clades is substantial (4.5–5.5%; Pavlova et al. 2008). Thus, two species are recognized:

- Pale Martin *Riparia diluta* (polytypic)
- Sand Martin *Riparia riparia* (polytypic)

The taxonomy and nomenclature of sand martins have been reviewed by Dickinson and Dekker (2001), Loskot and Dickinson (2001) and Loskot (2006). Sand Martin is in Category A of the British List.

**Thick-billed Warbler Acrocephalus aedon**

**Eastern Olivaceous Warbler Hippolais pallida**

**Booted Warbler Hippolais caligata**

**Sykes’s Warbler Hippolais rama**

A series of phylogenetic studies based on mitochondrial sequences indicate that the genus *Hippolais* is not monophyletic and that the Booted/olivaceous warblers (*Hippolais caligata, Hippolais rama, Hippolais opaca, Hippolais pallida*) form a clade which is more closely related to the genus *Acrocephalus* than to *Hippolais* (Leisler et al. 1997, Helbig & Seibold 1999, Round et al. 2007). A more detailed study based on mitochondrial and nuclear gene sequences also shows that the Booted/olivaceous warblers are not closely related to *Hippolais* but places these species outside the *Hippolais* and *Acrocephalus* clades (Fregin et al. 2009). The latter study suggests that *H. caligata, H. rama, H. pallida* and *H. opaca*, together with *Chloropeta natalensis, Chloropeta similis* and Thick-billed Warbler, are best placed in a separate genus, for which the name *Iduna* is available. Thick-billed Warbler was sister to the other species of *Iduna* in most analyses and thus may be placed in a separate genus (*Phragmaticola*). We have refrained from doing so to avoid recognition of a monotypic genus. As a consequence, the names and taxonomic sequence of the four species of *Iduna* on the British List become as follows:

- Thick-billed Warbler *Iduna aedon*
- Booted Warbler *Iduna caligata*
- Sykes’s Warbler *Iduna rama*
- Eastern Olivaceous Warbler *Iduna pallida*

**Siberian Thrush Zoothera sibirica**

Recent phylogenetic studies have shown that the genus *Zoothera* comprises two clades that are not closely related (Klicka et al. 2005, Voelker & Klicka 2008). One clade (the *Zoothera* clade) includes *Zoothera dauma* and several Indo-Malayan and Australasian species. The other clade (the *Geokichla* clade) includes several colourful African and Indo-Malayan species. These studies indicate that Siberian Thrush is not part of the *Zoothera* clade but most likely part of the *Geokichla* clade, although its exact position is poorly supported (Klicka et al. 2005, Voelker & Outlaw 2008, see also Voelker & Klicka 2008). Siberian Thrush is therefore placed in *Geokichla* and becomes:

- Siberian Thrush *Geokichla sibirica*

**Taxonomic sequence of Muscicapinae**

Recent phylogenetic analyses of mitochondrial and nuclear DNA sequences have clarified the relationships among the genera of chats and flycatchers (Muscicapinae, sometimes ranked as a family Muscicapidae) (Sangster et al. 2010b, Zuccon & Ericson 2010). The taxonomic sequence recommended here is based on the principle that, for each branching point in the phylogeny, the less-speciose group should be listed first.

- *Cercotrichas*
- *Muscicapa*
- *Erithacus*
- *Larvivora*
- *Irania*
- *Luscinia*
- *Calliope*
- *Tarsiger*
- *Ficedula*
- *Phoenicurus*
Recent phylogenetic analyses of mitochondrial and nuclear DNA sequences have demonstrated that *Luscinia* (sensu Voous 1977, Dickinson 2003) is not monophyletic, and that Siberian Blue Robin, Rufous-tailed Robin and Siberian Rubythroat, and several extralimital species, are not closely related to the ‘true’ nightingales, *Luscinia cyane* and *Luscinia megarhynchos* (Sangster et al. 2010b, Zuccon & Ericson 2010). We follow the revision proposed by Sangster et al. (2010b). As a consequence, the genera *Larvivora* and *Calliope* are reinstated for three species on the British List, as follows:

- Siberian Blue Robin *Larvivora cyane*
- Rufous-tailed Robin *Larvivora sibilans*
- Siberian Rubythroat *Calliope calliope*

### Greenfinch [European Greenfinch] *Carduelis chloris*

Recent phylogenetic studies suggest that the greenfinches (*Carduelis chloris, Carduelis sinica, Carduelis ambigua, Carduelis spinoides*) represent a monophyletic group which is not sister to the other species currently classified in *Carduelis* (Arnaiz-Villena et al. 1998, van der Meij et al. 2005, Zamora et al. 2006a, 2006b, Nguembock et al. 2008, see also Raikow 1978, 1985, Fehrer 1996). The greenfinches are therefore best placed in the genus *Chloris*. The Greenfinch thus becomes:

- European Greenfinch *Chloris chloris*

The same studies further indicate that the genera *Serinus* and *Carduelis* as currently defined do not represent monophyletic groups. However, due to incomplete taxon sampling, conflicting results and low support for some putative clades, no further changes are recommended at this time.
- Bullfinch *Pyrrhula pyrrhula* (polytypic)
  Eurasian Bullfinch is in Category A of the British List.

**Generic arrangement of North American wood warblers**

Molecular phylogenetic studies of mitochondrial and nuclear DNA sequences have clarified the relationships among the North American wood warblers (Lovette *et al.* 2010). These affect both the generic position and the taxonomic sequence of the wood warblers recorded in the Western Palaearctic. We recognize the recently proposed name *Parkezia* for the waterthrushes, which are not closely related to Ovenbird (Sangster 2008a, Lovette *et al.* 2010). Due to non-monophyly of *Vermivora*, Tennessee Warbler is placed in *Oreothlypis*. Recognition of *Oreothlypis* for Tennessee Warbler, rather than *Leiothlypis* (Sangster 2008b), follows AOU (Chesser 2010) for practical purposes. Due to non-monophyly of *Dendroica* and *Wilsonia*, and priority of the name *Setophaga*, all species currently included in *Dendroica*, as well as Northern Parula (currently *Parula americana*) and Hooded Warbler (currently *Wilsonia citrina*), are placed in *Setophaga*. Canada Warbler and Wilson’s Warbler are transferred from *Wilsonia* to *Cardellina*. The correct scientific name of Blue-winged Warbler is *Vermivora cyanoptera* (not *Vermivora pinus*) (Olson & Reveal 2009). The names and sequence of the species recorded in the Western Palaearctic become as follows (species on the British List are indicated by their category):

- Ovenbird *Seiurus aurocapilla* (Cat. A)
- Louisiana Waterthrush *Parkezia motacilla*
- Northern Waterthrush *Parkezia noveboracensis* (Cat. A)
- Blue-winged Warbler *Vermivora cyanoptera*
- Golden-winged Warbler *Vermivora chrysoptera* (Cat. A)
- Black-and-white Warbler *Mniotilta varia* (Cat. A)
- Tennessee Warbler *Oreothlypis peregrina* (Cat. A)
- Common Yellowthroat *Geothlypis trichas* (Cat. A)
- Hooded Warbler *Setophaga citrina* (Cat. A)
- American Redstart *Setophaga ruticilla* (Cat. A)
- Cape May Warbler *Setophaga tigrina* (Cat. A)
- Cerulean Warbler *Setophaga cerulea* (Cat. A)
- Northern Parula *Setophaga americana* (Cat. A)
- Magnolia Warbler *Setophaga magnolia* (Cat. A)
- Bay-breasted Warbler *Setophaga castanea* (Cat. A)
- Blackburnian Warbler *Setophaga fusca* (Cat. A)
- American Yellow Warbler *Setophaga petechia* (Cat. A)
- Chestnut-sided Warbler *Setophaga pensylvanica* (Cat. A)
- Blackpoll Warbler *Setophaga striata* (Cat. A)
- Black-throated Blue Warbler *Setophaga caerulea*
- Palm Warbler *Setophaga palmarum*
- Yellow-rumped Warbler *Setophaga coronata* (Cat. A)
- Black-throated Green Warbler *Setophaga virens*
- Canada Warbler *Cardellina canadensis*
- Wilson’s Warbler *Cardellina pusilla* (Cat. A)

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