

APPENDIX 4: *Changes in the EBA analysis, 1992–1997*

SINCE the initial EBA analysis was published in *Putting biodiversity on the map* (ICBP 1992), it has been modified in the light of new information, in particular a better understanding of the ecological requirements of the restricted-range species whose ranges determine the boundaries of EBAs. Some EBAs have been split into two, while pairs of others

have been combined into one; in addition, some new EBAs have been recognized while others have been dropped. Overall these changes are small (see below; also Box 2, p. 46), and their extent is summarized as follows (figures are the number of EBAs in the two analyses).

	Nos. of EBAs common to both analyses			Unique to old or to new analysis	Total no. of EBAs
	Unchanged since original analysis	Split since original analysis	Combined since original analysis		
<i>Original</i> analysis, 1992	177	9	28	7	221
<i>New</i> analysis, 1997	177	18	14	9	218

A full list of the original unique codes and corresponding new EBA numbers is given in Appendix 3 (p. 779). The reasons for incorporating these changes in the present analysis are outlined below (see also Long *et al.* 1996).

Unique code	New EBA no.	New EBA name	Notes
A09	015	Yucatán peninsula coastal scrub	The original Yucatán peninsula EBA has been split into the Yucatán peninsula coastal scrub (retaining the unique code A09) and Cozumel Island (unique code A29, new number 016) because several of the birds have larger ranges than originally thought and so have been dropped, leaving Cozumel, with three endemic species, as a separate EBA.
A11	012	Southern Sierra Madre Oriental	The original Central Mexican highlands EBA has been split into the Southern Sierra Madre (retaining the unique code A11) and the Balsas region and interior Oaxaca (unique code A27, new number 008) as the species in the separate EBAs have different habitat requirements.
A22	025	Cuba	The original Cuba and the Bahamas EBA has been split into Cuba (retaining the unique code A22) and the Bahamas (unique code A28, new number 026) as both are regarded as sufficiently distinct to qualify as EBAs in their own rights.
A27	008	Balsas region and interior Oaxaca	See A11.
A28	026	Bahamas	See A22.
A29	016	Cozumel Island	See A09.
A30	013	Los Tuxtlas and Uxpanapa	This new EBA has been recognized following the elevation to species rank of two taxa endemic to the region.
B01	—	Guianas	These EBAs have been dropped because recent fieldwork and a more detailed analysis of bird distributions in the regions reveal that the species originally treated as having restricted ranges are too widespread to qualify.
B05	—	Venezuelan llanos	
B14+B15	041	Chocó	The original Chocó EBA (B14) and the Western Andes of Colombia and Ecuador EBA (B15) have been combined into a single EBA because it was felt that the original division between the lowland and montane species in the region was not sufficiently clear-cut to warrant separate treatment.
B17	042	Northern Central Andes	The original Central Andes of Colombia and Ecuador EBA has been split into the Northern Central Andes (retaining the unique code B17) and part of the Central Andean páramo (unique code B60, new number 043; see also B21) because the high-altitude-grassland species of this region are distributed throughout, and are therefore best treated in their own EBA separate from the montane forest species which show latitudinal division.
B19+B23	066	Upper Amazon–Napó lowlands	The original Napó lowlands EBA (B19) and the North-east Peruvian riverine forests EBA (B23) have been combined into a single EBA owing to the apparent overlap in the distribution of the restricted-range species, although limited ecological data suggest that some species may only occur in riverine forest and on river islands.

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Unique code	New EBA no.	New EBA name	Notes
B20+B26	045	Tumbesian region	The original Ecuadorian dry forests EBA (B20) and the North Peruvian coast EBA (B26) have been combined into a single EBA because it was found that many of the birds overlap both ecologically and geographically.
B21	046	Southern Central Andes	The original South Central Andes EBA has been split into the Southern Central Andes EBA (retaining the unique code B21, EBA number 046) and part of the Central Andean páramo (unique code B60, new number 043; see also B17) because the high-altitude-grassland species of this region are distributed throughout, and are therefore best treated in their own EBA separate from the montane-forest species which show latitudinal division.
B23+B19	066	Upper Amazon–Napo lowlands	See B19.
B26+B20	045	Tumbesian region	See B20.
B27+B31	051	Peruvian High Andes	The original Western Andes of Peru EBA (B27) and South-east Peruvian Andes EBA (B31) have been combined into a single EBA because, although there are species confined to the Andes of south-east Peru, an equal number (or more) occur both there and to the north around Lake Junín and in the north-western cordilleras.
B34	054	Bolivian and Peruvian lower yungas	The original Lower Bolivian yungas EBA has been split into the Bolivian and Peruvian lower yungas (retaining the unique code B34) and the Bolivian and Argentine yungas (unique code B57, new number 057) because the two areas are disjunct, and the addition of newly identified restricted-range species makes the two areas sufficiently distinct to qualify as separate EBAs in their own rights.
B35+B37	056	Bolivian and Argentine high Andes	The original Bolivian Andes EBA (B35) and the North Argentinian Andes EBA (B37) have been combined into a single EBA because recent fieldwork on both sides of the Argentine–Bolivian border has shown that there is considerable overlap in the distribution of the restricted-range species of the two former EBAs.
B36	—	East Bolivian lowlands	This EBA has been dropped because recent fieldwork and a more detailed analysis of bird distributions reveal that the species originally treated as having restricted ranges are too widespread to qualify.
B37+B35	056	Bolivian and Argentine high Andes	See B35.
B38	—	Argentinian grasslands	This EBA has been dropped because recent fieldwork and a more detailed analysis of bird distributions reveal that the species originally treated as having restricted ranges are too widespread to qualify.
B41	060	Central Chile	The original Central Chile EBA has been split into a different Central Chilean EBA (retaining the unique code B41) and the Chilean temperate forests (unique code B58, new number 061) as the species in the two areas have different habitat requirements and distributions.
B44	—	West Amazonian Brazil	This EBA has been dropped because recent fieldwork and a more detailed analysis of bird distributions reveal that the species originally treated as having restricted ranges are too widespread to qualify.
B51+B52	075	Atlantic forest lowlands	The original Bahian and Espírito Santo Atlantic slope EBA (B51) and the South-east Brazilian lowland to foothills EBA (B52) have been combined into a single EBA as there appears to be too much overlap in the ranges of the restricted-range birds to warrant subdivision, although further work is needed on the distribution patterns of all the birds of these forests.
B53+B54	076	Atlantic forest mountains	The original South-east Brazilian mountains EBA (B53) and the South-east Brazilian <i>Araucaria</i> forest EBA (B54) have been combined into a single EBA because it was felt that the species which occur in <i>Araucaria</i> forests were not as tied to this habitat as originally thought, with several occurring in montane habitats.
B56	063	Rio Branco gallery forests	This new EBA clearly embraces the ranges of two threatened gallery-forest restricted-range species.
B57	057	Bolivian and Argentine yungas	See B34.
B58	061	Chilean temperate forests	See B41.
B59	—	—	This code was temporarily assigned to the region of the Araguaia river in Brazil (post 1992), which is now treated as Secondary Area s031.
B60	043	Central Andean páramo	See B17 and B21.

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Unique code	New EBA no.	New EBA name	Notes
C09	079	Tristan Islands	The original Tristan da Cunha islands EBA has been split into the Tristan Islands (retaining the unique code C09) and Gough Island (unique code C47, new number 080) following the recognition of the specific status of two island races.
C25	—	South Zambia	This EBA has been dropped because new range information on one of its two endemic species showed that it clearly exceeds 50,000 km ² .
C32+C33	098	Comoro Islands	The original Comoros Islands EBA (C32) and Mayotte EBA (C33) have been combined into a single EBA because as many species are shared between them as are endemic to individual islands.
C42	—	—	This code was temporarily assigned (post 1992) to North-west Somalia, which is now treated as Secondary Area s064.
C43	113	Jubba and Shabeelle valleys	This new EBA has been recognized because of the description of a new species, the inclusion of a species which was wrongly excluded from the original analysis, and a species which was formerly allocated to a Secondary Area.
C44	090	Lesotho highlands	These two new EBAs have been recognized because taxa treated as a full species in Sibley and Monroe (1993) coincided in distribution with other restricted-range species.
C45	110	Pemba	
C46	089	South African forests	This new EBA has been recognized because of the description of a new species and the inclusion of several species which were wrongly excluded from the original analysis.
C47	080	Gough Island	See C09.
C48	081	Annobón	This new EBA, with two endemic species, has been recognized following the elevation to species rank of one of its endemic taxa.
D03	—	Indus valley	This EBA has been dropped because one of the two taxa endemic to the region is no longer considered to be a full species (following Sibley and Monroe 1993).
D08+D10	130	Eastern Himalayas	The original Eastern Himalayas EBA (D08) and the Tirap Frontier EBA (D10) have been combined into a single EBA as new information suggests that one of its two species is not sufficiently distinct in distribution and habitat requirements from several of the other Eastern Himalayan restricted-range species to justify separation.
D26	148	Nansei Shoto	The original Nansei Islands EBA has been split into the Nansei Shoto (retaining the unique code D26) and the Izu islands (unique code D29, new number 146). This is despite the fact that two of the Izu islands' restricted-range species have been recorded breeding in the Nansei Shoto EBA, c.1,000 km away, because the numbers of birds involved are very small.
D28	129	Central Himalayas	This new EBA has been recognized following the description of a new species.
D29	146	Izu Islands	See D26.
E01+E02	151	Luzon	Four pairs of original EBAs have been combined into single EBAs: the Luzon mountains EBA (E01) and the Luzon lowlands and foothills EBA (E02); the Samar, Leyte, Bohol and Mindanao lowlands EBA (E07) and the Mindanao mountains EBA (E08); the Sulawesi mountains EBA (E20) and the Sulawesi lowlands EBA (E21); and the Central New Guinean high mountains EBA (E32) and the Central New Guinean mid-mountains EBA (E33). This is because a review of the data on the restricted-range species' habitat requirements and altitudinal ranges has shown that many share similar distributions and, although most species can be divided into different vegetational zones, there is often partial altitudinal overlap between these zones.
E07+E08	154	Mindanao and the Eastern Visayas	
E20+E21	166	Sulawesi	
E32+E33	178	Central Papuan mountains	
E34	180	Trans-Fly	The original Trans-Fly and Upper-Fly EBA has been split into the Trans-Fly (retaining the unique code E34) and the south Papuan lowlands (unique code E44, new number 179) because further analysis revealed that there was little distributional overlap between the restricted-range species of these two regions.
E43	—	—	This code was temporarily assigned to the Sabah lowlands in Malaysia (post 1992), which is now treated as Secondary Area s098.
E44	179	South Papuan lowlands	See E34.
F10+F11	198	Solomon group	The original Solomon Islands EBA (F10) and San Cristobal EBA (F11), part of the same archipelago, have been combined into a single EBA as many species are shared between them, although San Cristobal/Makira is clearly an important area of endemism in its own right.
F31	211	Rimatarā	This new EBA has been recognized following the elevation to species rank of one of its taxa.