



Bird Endemism in Mindanao

Silvery Kingfisher *Ceyx argentatus*
Endemic to Greater Mindanao
Photo by Alain Pascua



Black-and-cinnamon Fantail *Rhipidura nigrocinnamomea*
Endemic to Mindanao
Photo by Adri Constantino

What is endemism?

- ▶ A species is endemic when it is restricted to a particular area

What is endemism?

Malaysia*

Area: 329,847km²

Number of Birds: 695

Number of endemic birds: 6

0,8 %

Vietnam*

Area: 331.120 Km²

Number of Birds: 820

Number of endemic birds: 10

1,2%

Philippines**

Area: 300.000 Km²

Number of birds: 673

Number of endemic birds: 234

34,7 %

Borneo‡

Area: 743.380 km²

Number of Birds: 669

Number of endemic birds: 52

7,8 %

* Source: Birdlife International, www.birdlife.org

** Source: WBCP 2013 Checklist

‡ Source: Philipp's field guide to the birds of Borneo

Why is endemism important?

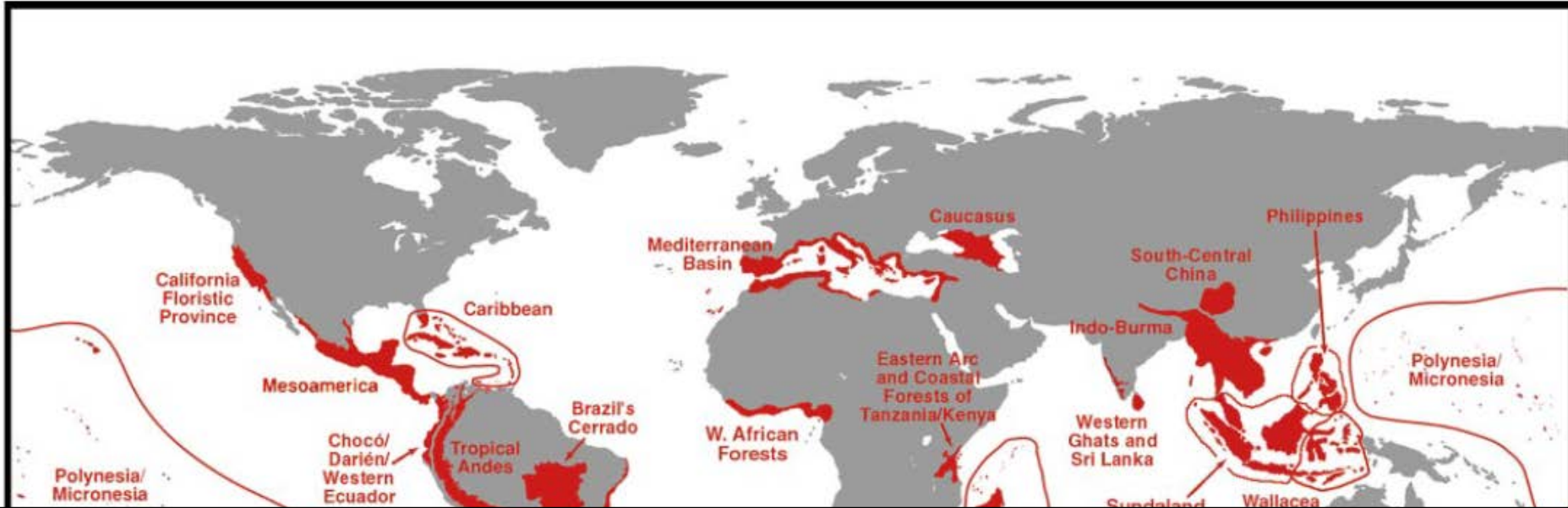
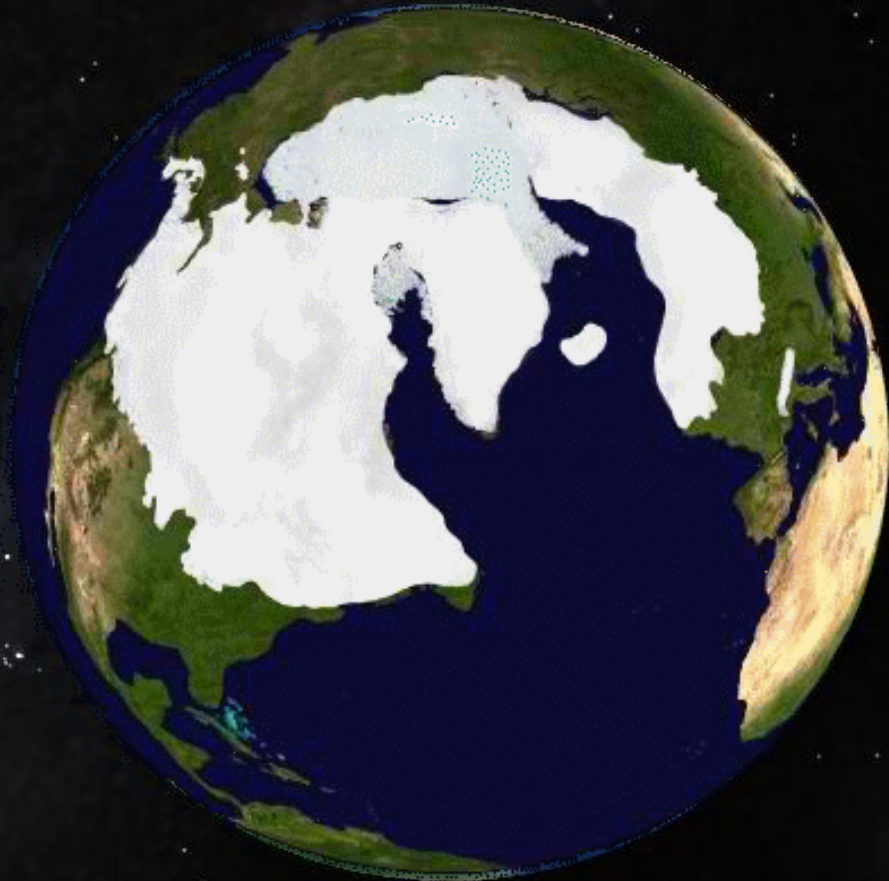


Table 6 The eight hottest hotspots in terms of five factors

Hotspot	Endemic plants		Endemic vertebrates		Endemic plants/area ratio (species per 100 km ²)		Endemic vertebrates/area ratio (species per 100 km ²)		Remaining primary vegetation as % of original extent		Times appearing in top 10 for each of five factors
Madagascar	9,704	4	771	4	16.4	8	1.3	7	9.9	9	5
Philippines	5,832	8	518	9	64.7	2	5.7	2	3.0	1	5
Sundaland	15,000	2	701	5	12.0	10	0.6	10=	7.8	7	5
Brazil's Atlantic Forest	8,000	5	654	6	8.7		0.6	10=	7.5	6	4
Caribbean	7,000	6=	779	3	23.5	6	2.6	4	11.3		4
Indo-Burma	7,000	6=	528	8	7.0		0.5		4.9	3	3
Western Ghats/Sri Lanka	2,180		355		17.5	7	2.9	3	6.8	5	3
Eastern Arc and Coastal Forests of Tanzania/Kenya	1,500		121		75.0	1	6.1	1	6.7	4	3

Why are some species endemic?

Ice age glaciations

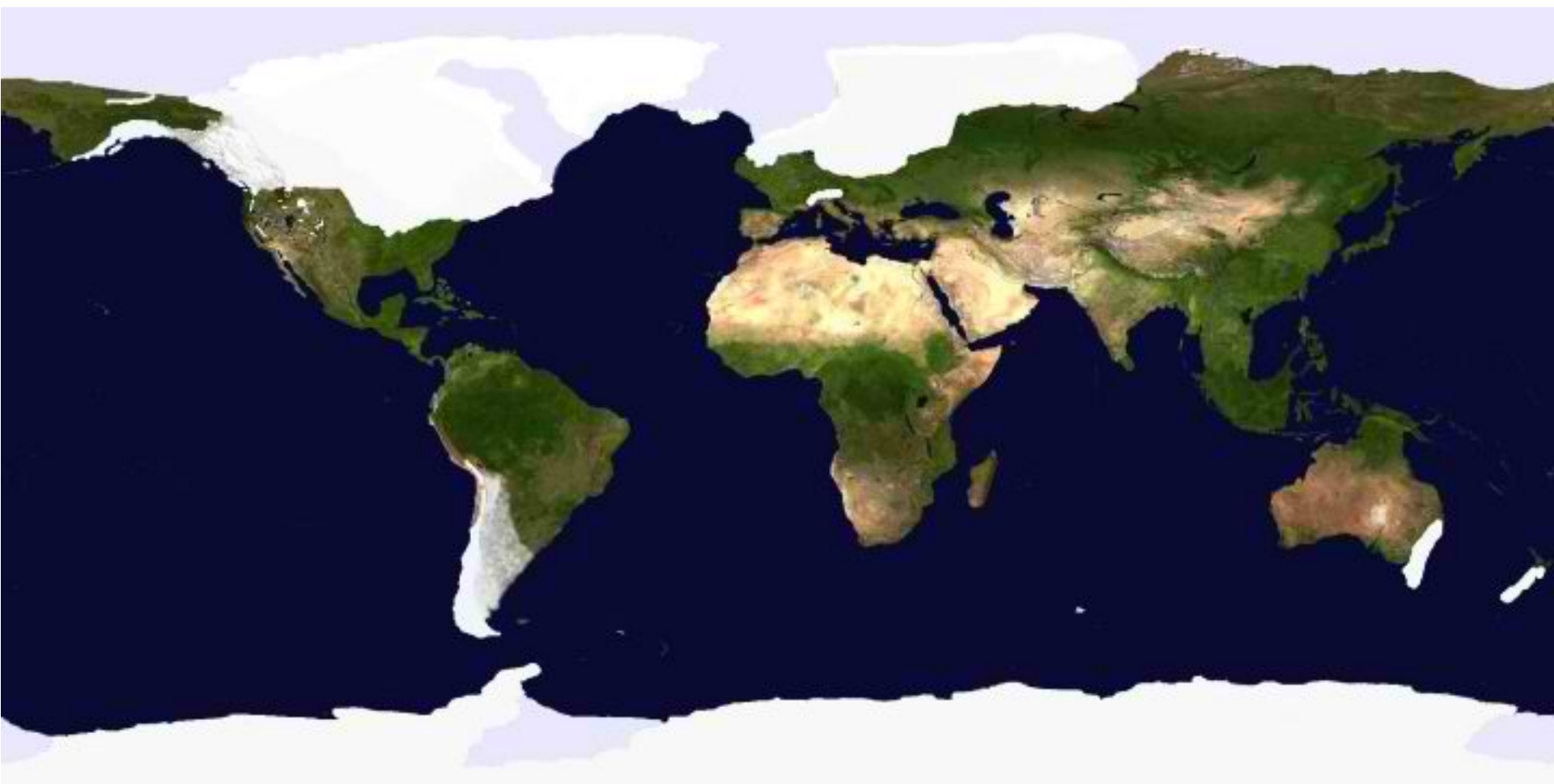


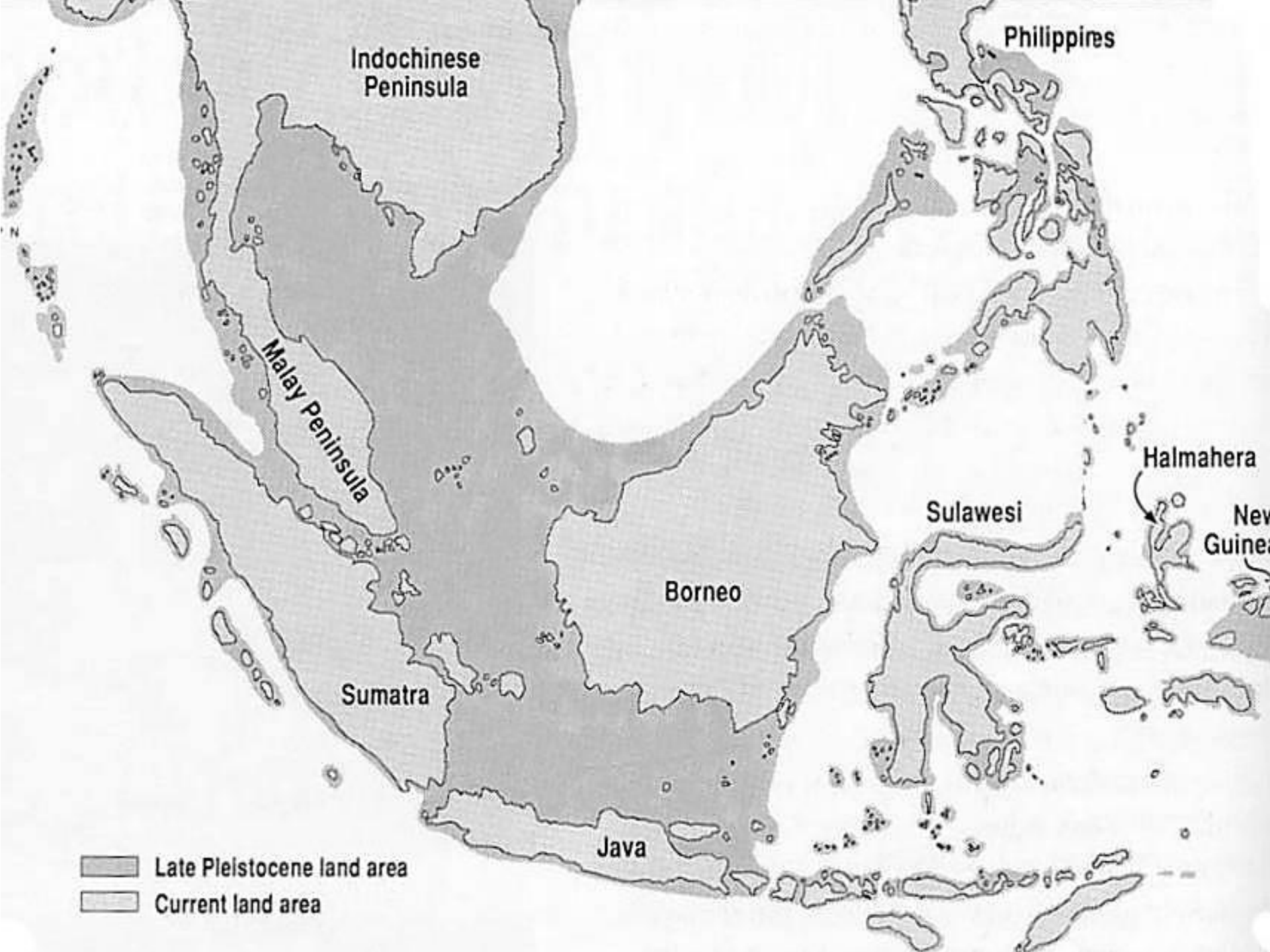
Interglacial period



Source: Dr. Martin Jakobsson, Stockholm Geo Visualization Lab.
<http://simpleclimate.wordpress.com/category/paleoclimate/>

Source: Google Earth. Image Landsat . Data SIO, NOAA, Nave,
NGA, GEBCO. Image IBCAO





Faunal Regions in the Philippines

- Greater Luzon
- Mindoro
- West Visayas
- Greater Mindanao
- Sulu Islands
- Greater Palawan

And several sub-regions, e.g.:
Batanes Group, Babuyan Group,
Lubang, Romblon & Tablas, Sibuyan,
Siquijor and Camiguin Sur



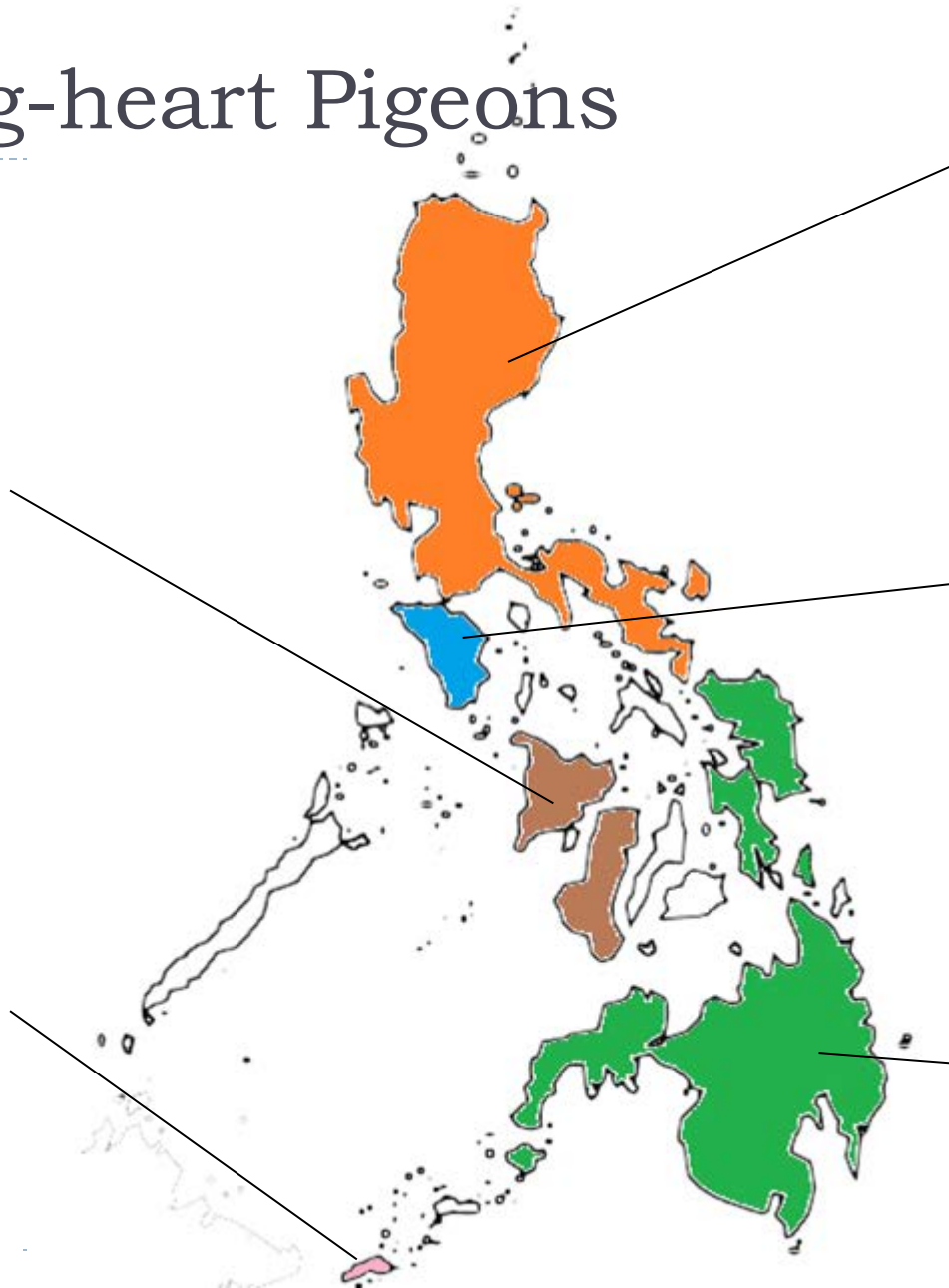
Bleeding-heart Pigeons



Negros Bleeding-heart
Gallicolumba keayi



Sulu Bleeding-heart
Gallicolumba menagei



Luzon Bleeding-heart
Gallicolumba luzonica



Mindoro Bleeding-heart
Gallicolumba platenae



Mindanao Bleeding-heart
Gallicolumba criniger



RED-EARED PARROTFINCH
Erythrura coloria
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Red-eared Parrotfinch *Erythrura coloria*
Endemic to Mindanao
Photo by Adri Constantino

Levels of endemism

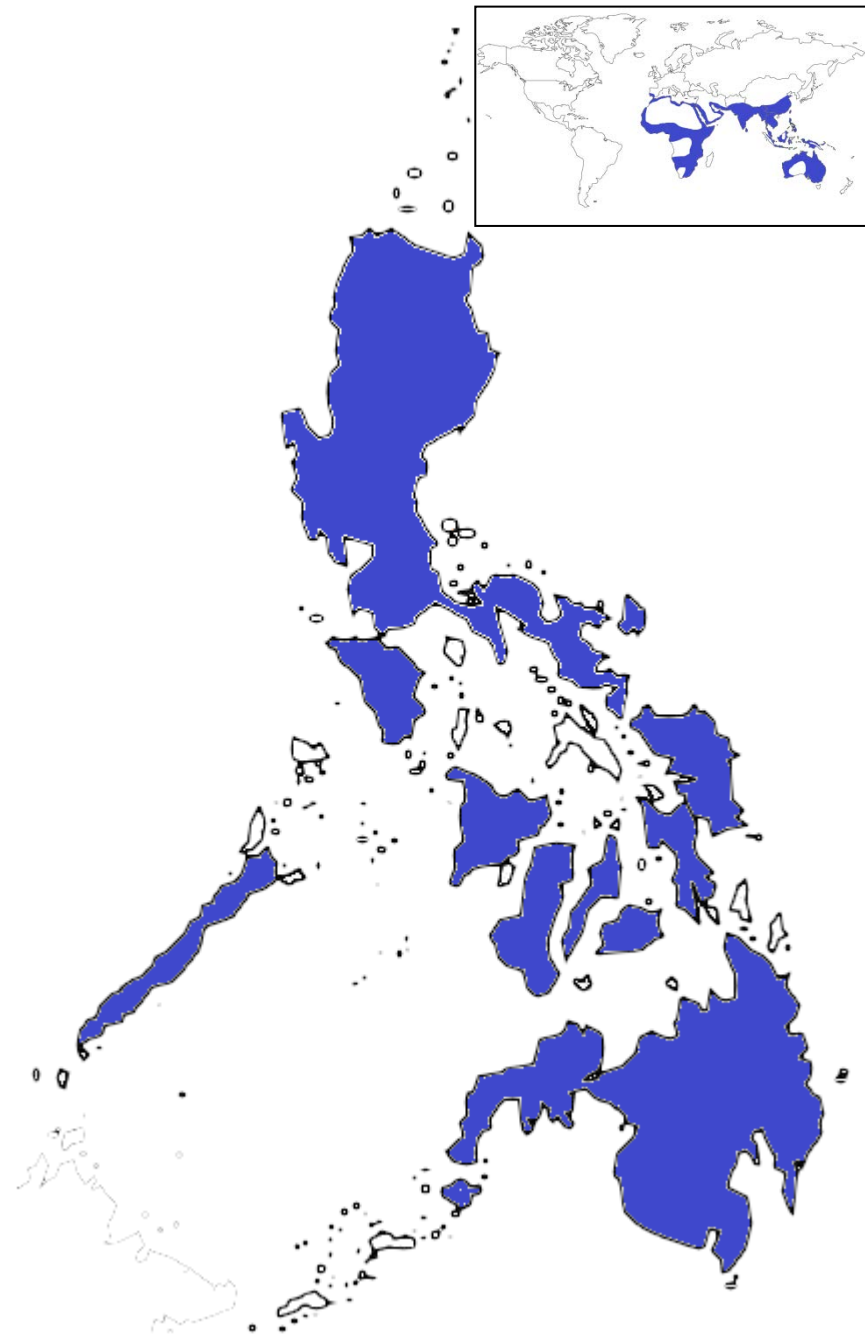
▶ Non-endemic



Little Egret

Egretta garzetta

Resident and migrant populations



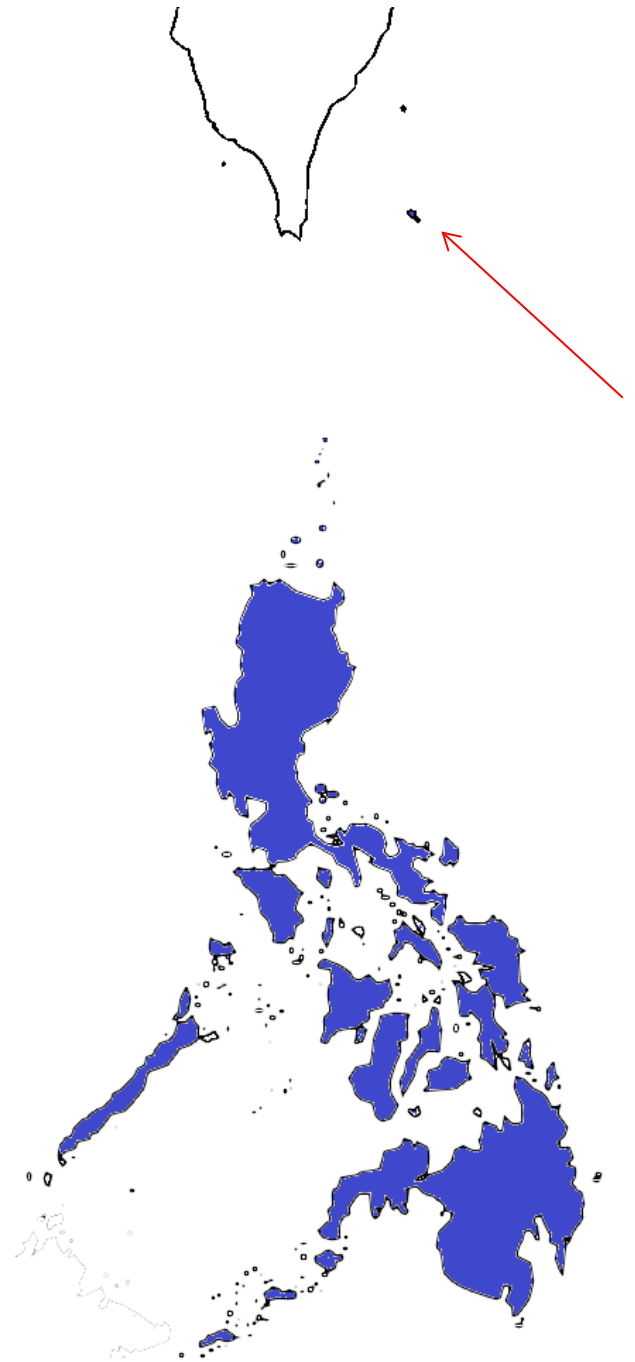
Levels of endemism

▶ Near-endemic

- ▶ 10 species

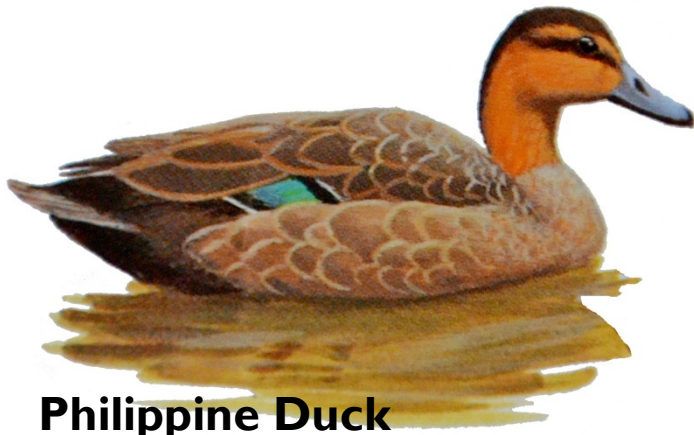


**Reddish/Philippine
Cuckoo-dove**
Macropygia tenuirostris



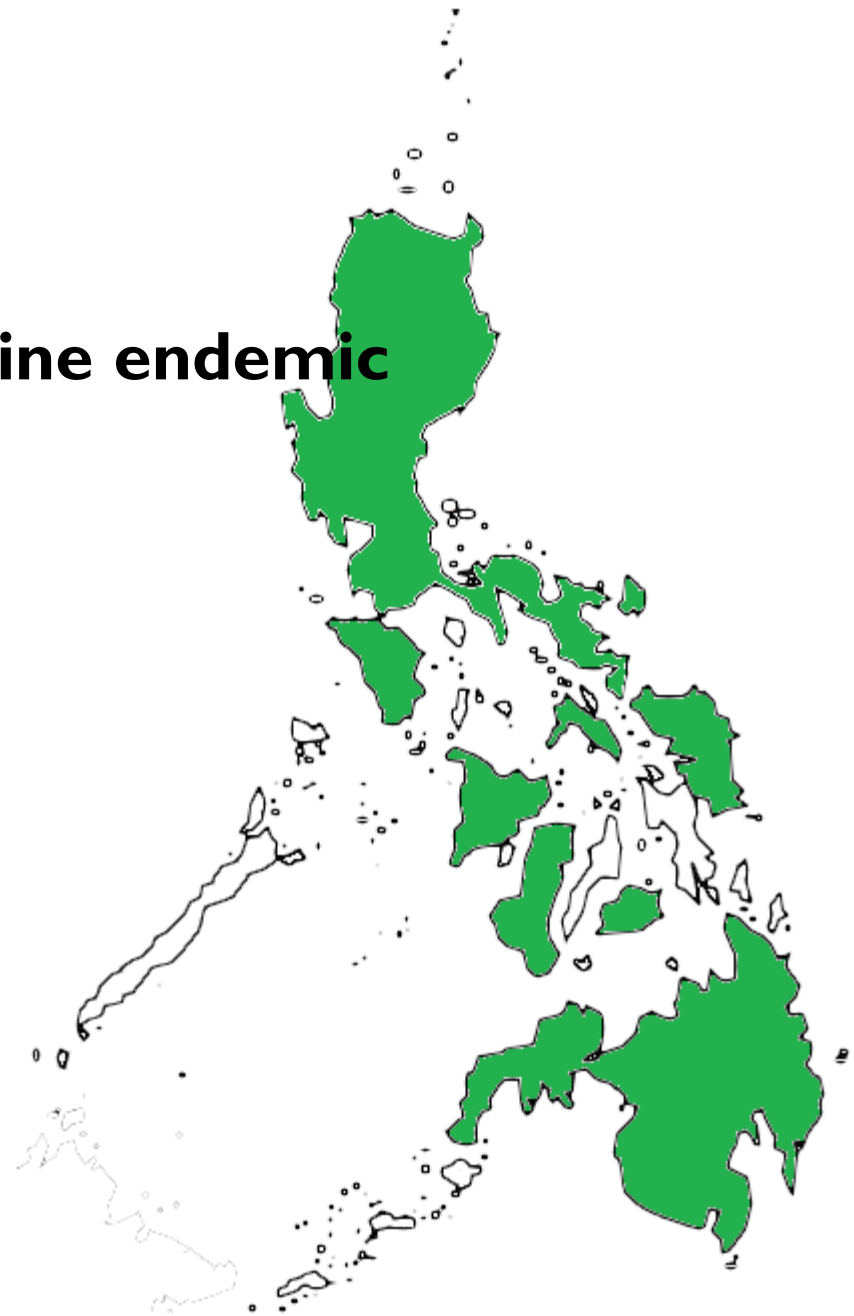
Levels of endemism

- ▶ Non-endemic
- ▶ **Country-endemic / Philippine endemic**
 - 234 species for the Philippines



Philippine Duck

Anas luzonica

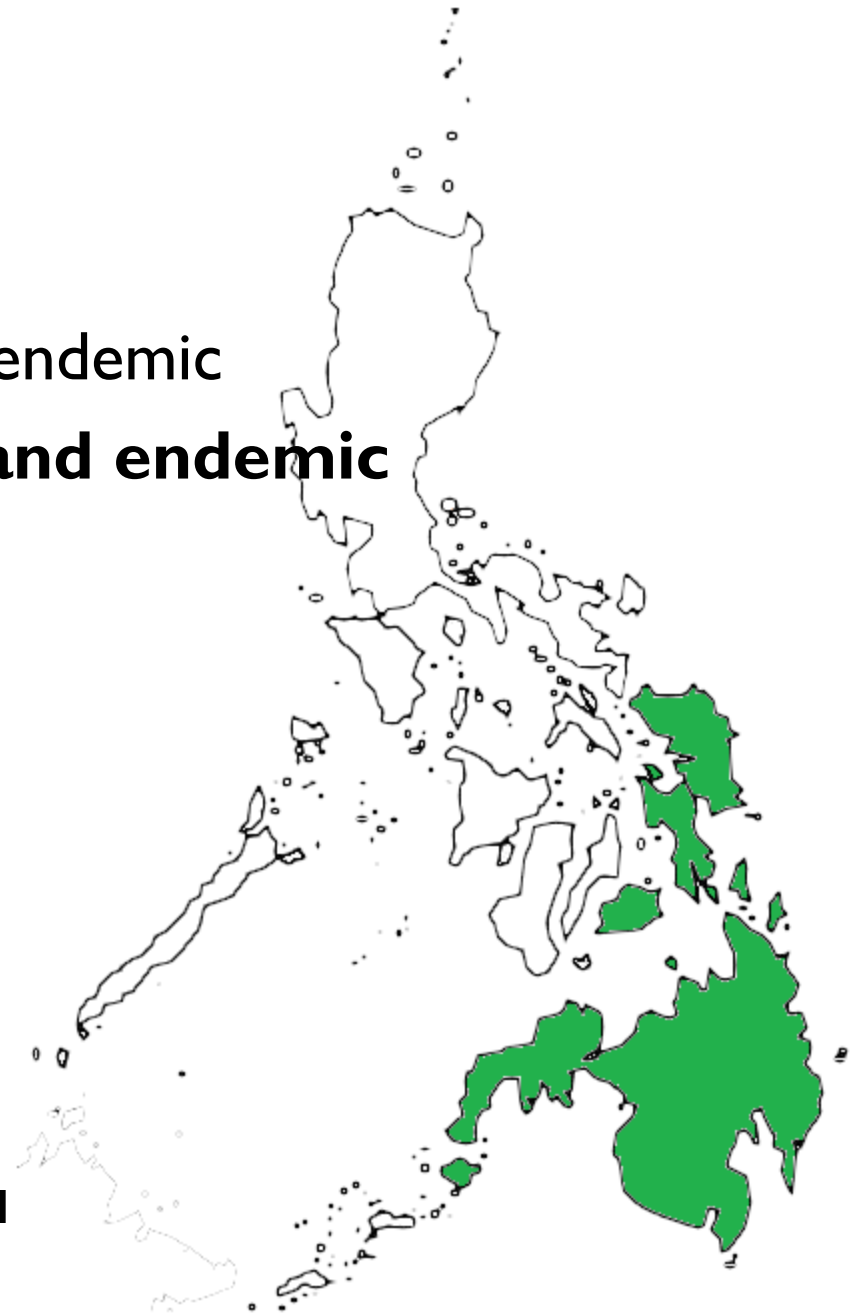


Levels of endemism

- ▶ Non-endemic
- ▶ Country-endemic / Philippine endemic
- ▶ **Greater island / Ice age island endemic**
 - 51 species for Greater Mindanao



Mindanao Tarictic Hornbill
Penelopides affinis

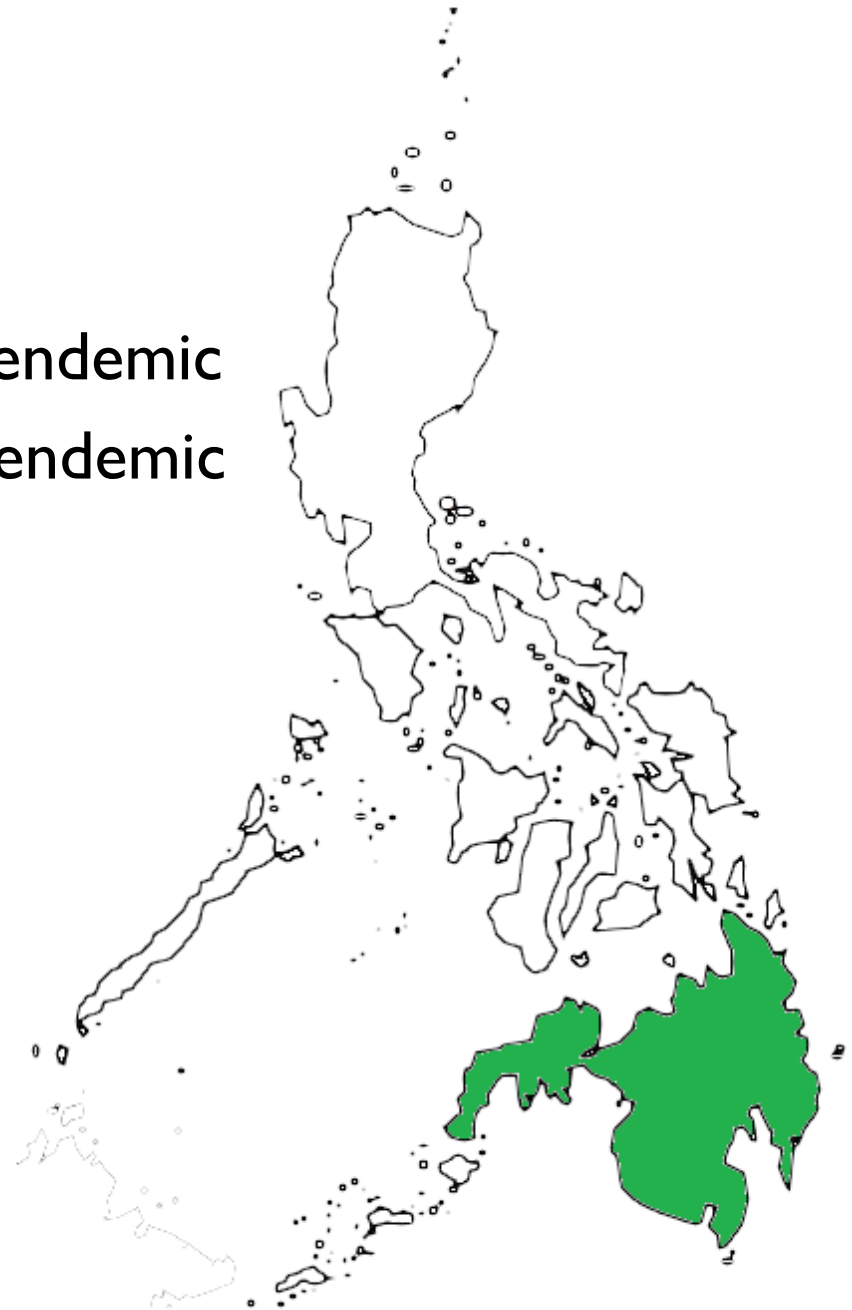


Levels of endemism

- ▶ Non-endemic
- ▶ Country-endemic / Philippine endemic
- ▶ Greater island / Ice age island endemic
- ▶ **Island endemic**
 - 20 species for Mindanao Island



Blue-capped Wood-kingsfisher
Actenoides hombroni



Levels of endemism

- ▶ Non-endemic
- ▶ Country-endemic / Philippine endemic
- ▶ **Greater island / Ice age island endemic**



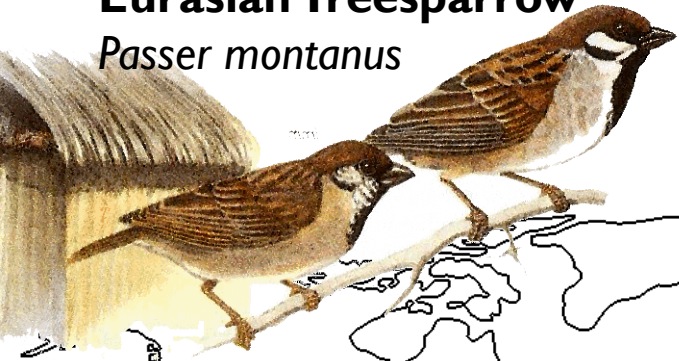
Zamboanga Bulbul
Ixos ruficularis



Range of two species

Eurasian Treesparrow

Passer montanus



Zamboanga Bulbul

Ixos ruficularis





Zamboanga Bulbul *Ixos rufigularis*
Endemic to Greater Mindanao
Photo by Sylvia Ramos

TONJI RAMOS

Blue-capped Wood Kingfisher

Actenoides hombroni

Vulnerable

Endemic to Mindanao



Number of IUCN threatened species: 81

52 Vulnerable, 14 Endangered and 15 Critically Endangered

Near Threatened 63, Data Deficient 5

Photo by Sylvia Ramos



Mettalic-winged Sunbird *Aethopyga pulcherima*
Endemic to Greater Mindanao
© ADRI CONSTANTINO
Photo by Adri Constantino



Whiskered Flowerpecker *Dicaeum proprium*
Endemic to Mindanao
Photo by Sylvia Ramos

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With a big thanks to the photographers

- ▶ Adrian Constantino
- ▶ Alain Pascua
- ▶ Ivan Sarenas
- ▶ Sylvia and Tonji
Ramos



Rufous-headed Tailorbird
Endemic to Mindanao
Photo by Sylvia Ramos

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Questions?

References

- ▶ Wild Bird Club of the Philippines. 2013. Checklist of the Birds of the Philippines 2013. Web address: www.birdwatch.ph
 - ▶ Kennedy, R.S, P.C. Gonzales, E.C. Dickinson, H.C. Miranda & T.H. Fisher (2000). A guide to the birds of the Philippines
 - ▶ IUCN red list of endangered species. www.redlist.org
 - ▶ Google Earth 2014
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Mindanao Blue Fantail *Rhipidura superciliaris*
Endemic to Greater Mindanao
Photo by Alain Pascua