Shorebird Colour Marking Protocol for the East Asian-Australasian Flyway

(adopted by MOP12 DD.10 (2025))

Colour marking refers to the use of any colour mark attached to a bird that enables identification of the bird in the field (resighting). Along the East Asian – Australasian Flyway (EAAF), metal bands and plastic coloured leg flags/bands are being used to mark shorebirds. Most of the colour leg flags are also engraved with an individual code (referred to as engraved leg flag) to enable resightings of individual birds.

Researchers consolidate resighting data of colour marked shorebirds to study migration patterns, understand survival rate and longevity, and to work out population estimates and trends. This knowledge forms the scientific basis for conservation plans and actions to protect the shorebird species and the wetlands that they depend on.

Shorebird Colour Marking Protocol for the EAAF was first developed in the early 2000s and was last updated in 2017 to better coordinate and communicate shorebird colour marking efforts on the EAAF. Unique colour marking combinations have been assigned to shorebird banding locations. Currently, there are over 70 individual colour marking sites/organisations along the Flyway. This 2025 colour chart shows the colour marking combinations where colour marking researches are currently active in the EAAF and in India and Sri Lanka.

Researchers who plan to colour mark shorebirds must refer to this Protocol for the assigned colour combination of bands/leg-flags for their banding location. Before colour marking any birds, researchers must approach the relevant national banding office(s) for permission to mark and for approval of the colour scheme. If a country where birds are planned to be marked does not have a national scheme, the scheme of a nearby country shall be requested for permission to use their national scheme and leg-flag colour scheme.

If colour-bands are planned to be used next to leg-flags, the choice of the colours and the colour scheme require flyway-wide coordination. In the case of shorebirds, an approved band-colour scheme should be obtained from the EAAF Partnership Shorebird Working Group, to avoid multiple use of the same combinations.

Collecting resighting data is a vital part of any colour marking project and this can only be done by effective communication between researchers and observers who resight the colour marked birds in the field. After a new colour marking project begins, researchers should publicise via the EAAFP (webpage and e-newsletter; example) how colour marks were used by their project, and provide their contact information for observers to report sightings. It is the responsibility of the researchers to respond to observers who send them colour mark resighting records with the life history of the marked bird.

Shorebird observers, birdwatchers, photographers, and citizen scientists can use this colour chart as a "field guide" for observing birds with coloured leg flags/bands in the field, which helps to identify where an individual was marked. Observers are encouraged to record and report their sightings with the following information:

- Basic information: observer's name and email address, observation date and location (preferably with GPS coordinates), and the species of the bird observed with the colour mark.
- Details about the colour mark: **the most ideal would be to take a photo/video of the bird showing all parts of the bird's legs clearly**. If photographing is not possible, record in detail: the colour, type (i.e. flag or band), and position of the mark(s) on the bird's leg(s) (left or right, upper or lower leg); any code (letter, number, symbol) engraved on the flag(s).

Observers can report their sightings directly to the researchers, or via any of the following channels. Administrators of these channels will relay the sightings to the corresponding researchers and feedback the life history of the marked bird once such information is received from the researchers:

- "Shorebird leg-flag sightings in the EAAF" Facebook Group
- "BirdMark" Website
- "Shorebird Resighting Information of EAAF" Website
- "Reporting waterbird rings and flags sightings" Webpage
- For Chinese birders/photographers, email to flagsightings@163.com
- For Japanese birders/photographers, "Report form of marked bird resighting" Website

Updated: November 2025

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EAAFP/MOP12/Decision 10

Key:

Upper flag / Lower flag	Banding location

Pale blue / Orange	Russia, North-west Chukotka (Chaun Delta)
Pale blue	Russia, Northern Chukotka [using plain flags only]
Lime	Russia, Southern Chukotka
Lime / White	Russia, Southern Chukotka
Black / Yellow	Russia, Kamchatka (various sites)
Yellow / White	Russia, Sakhalin Island [using plain flags only]
Red	Russia, Schaste Bay and Viakhtu Bay [on Nordmann's Greenshank, with colour bands]
Yellow (band) / Green	USA, Northern Alaska (Barrow) [on Dunlin, with colour bands]
Orange (band) / Green	USA, North Western Alaska [on Dunlin, with colour bands]
Blue (band) / Green	USA, Western Alaska [on Dunlin, with colour bands]
Green (band) / Green	USA, Northern Alaska (Canning River) [on Dunlin, with colour bands]
Pale blue (band) / Green	USA, Northern Alaska (Ikpikpuk & Prudhoe Bay) [on Dunlin, with colour bands]
Black	USA, Alaska [on Bar-tailed Godwit]
Blue / Green	Mongolia (various sites)
Orange / White	Democratic People's Republic of Korea
White / Orange	Republic of Korea
Blue	Japan, Hokkaido (Furen Lake and Utonai Lake)
Blue / Blue	Japan, Hokkaido (Komuke Marsh) and Honshu (Lower Tone River)
Blue / White	Japan, Honshu (Tokyo Bay and Torinoumi)
Blue / Orange	Japan, Kyushu (Ariake Sea) and Okinawa (Okinawa Island and Miyako Island)
Green / Orange	China, Yalujiang Estuary (Dandong, Liaoning)
Blue / Yellow	China, Bohai Bay (various sites)
Green / Blue	China, Jiangsu (Dongtai and Rudong)
White / Black	China, Shanghai Chongming Dongtan Nature Reserve [before 2006, using plain flags only]
Black / White	China, Shanghai Chongming Dongtan Nature Reserve [after 2006]
Black / White + Blue	China, Zhejiang [blue flag on opposite leg, using plain flags only]
White / Blue	China, Taiwan (various sites)
White / Yellow	China, Guangdong (Hong Kong, Shenzhen, Yangjiang and Zhanjiang)
Black / Green	Thailand (Inner Gulf of Thailand and Andaman Coast of the Thai Peninsula)
Green / Black	Cambodia
Yellow / Black	Malaysia (East and West Malaysia)
Green / White	Singapore (Sungei Buloh and Pulau Ubin)
Black / Blue	Philippines [with colour bands]
Black / Orange	Indonesia, Java and Madura Island [using plain flags only]
Orange / Black	Indonesia, Sumatra and Central Borneo [using plain flags only]
Orange / Orange	Indonesia, West Papua [using plain flags only]
Yellow / Yellow	Bangladesh [some Black-tailed Godwits are marked with 2 plain flags + 3 colour bands]
White / White	India (various sites: North; West; East coast; Inland)
Black	India, South
Green / Green	Sri Lanka
Yellow / Blue	Australia, Northern Territory
Green	Australia, Queensland (including Gulf of Carpentaria)
Orange / Green	Australia, New South Wales
Orange	Australia, Victoria
Orange / Yellow	Australia, South Australia
Orange / Blue	Australia, Tasmania
Yellow / Orange	Australia, South-west Western Australia
Yellow	Australia, North Western Australia [some Great and Red Knots, Bar-tailed and Black-tailed Godwits are marked with 1 plain flag + 4 colour bands]
White	New Zealand, North and South Island [some Red Knots, Bar-tailed Godwits and Ruddy Turnstone are marked with 1 plain flag + 4 colour bands]
Red	New Zealand, South Island [on Bar-tailed Godwit, with 1 plain flag + 4 colour bands]

Assigned but currently inactive:

Pale blue / White	Russia, Wrangel Island
Blue / Black	China, Guangxi and Hainan
Yellow / Green	Vietnam
Black / Black	Myanmar

Special colour flagging scheme for Spoon-billed Sandpiper:

Spoon-billed Sandpiper Task Force

Lime	Spoon-billed Sandpiper, wild birds from breeding ground
White	Spoon-billed Sandpiper, chicks from head starting programme
Yellow	Spoon-billed Sandpiper, wild birds from stopover sites
Orange	Spoon-billed Sandpiper, wild birds from wintering ground

Note: There are also small number of individuals marked following the Shorebird Colour Flagging Protocol, e.g. in recent year: Shanghai Chongming Dongtan (Black over white); Thailand (Black over green); North Chukotka (pale blue).

Notes:

Each colour marking combination may be shared by several researchers in one banding location. To differentiate between the projects, some minor variations of marks may be applied (e.g. placing the flag(s) on left or right leg, cutting the flag(s) at an angle). The EAAFP Shorebird Working Group holds an inventory of what and how colour marks are used by individual colour marking sites/organisations.

In China, some breeding Eurasian Oystercatcher in Liaoning Liao River Estuary, and some breeding Kentish Plover and Black-winged Stilt at various sites along the coast are marked just with colour bands (no flag).

In Australia and New Zealand, non-migratory shorebirds (e.g. various oystercatcher species) are also marked with engraved leg flags, those might not follow this Protocol.

Updated: November 2025