



COLOR MARKINGS



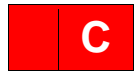

used in the East Asian-Australasian Flyway




Available at <http://www.eaaflyway.net/coordination-of-marking.php>

EVERY SINGLE RESIGHTING IS IMPORTANT. *If you observed a marked bird, please report the following information as much as possible to relevant organizations: species, date, locality (with coordinates), color marks (type, color, and inscription of the marks), photographs, circumstances and other relevant details, etc. Domestic/local banding schemes as well as contact persons in the following tables are best focal points. Your reports will benefit migration studies and identification of key routes and habitats of migratory birds.*

Laridae (gulls and terns)

You may find relevant information on color-marked gulls and terns in Europe on the <http://www.cr-birding.org/> or 'European Colour-ring Birding: Gulls and Terns' page mainly managed by Dirk Raes.

| Black-tailed Gull (<i>Larus crassirostris</i>) | | | | | |
|--|---------|--------|---|---|--|
| Type | Country | Color | Example | Notes | Contact information |
| Wing tag | Japan | Blue |  | <p>Rishiri Island in Hokkaido in 2001 and 2002</p> <ul style="list-style-type: none"> In 2001, black letter A and three digits were used (A001-A059). In 2002, only 2 digits (A00-A99) were printed in five different colors: white, lavender (light purple), yellow, green, and dark blue. | <p>Hokkaido Institute of Environmental Sciences</p> <p>Yamashina Institute for Ornithology</p> |
| | | Red |  | <p>Teuri Island in Hokkaido in 2001 and 2002</p> <ul style="list-style-type: none"> In 2001, black letter A and three digits were used (A001-A150). In 2002, only 2 digits (A00-A99) were printed in five different colors: white, lavender (light purple), yellow, green, and dark blue. | <p>Hokkaido Institute of Environmental Sciences</p> <p>Yamashina Institute for Ornithology</p> |
| Leg flag | Japan | Red |  | <p>Rishiri Island in Hokkaido since 1998</p> <ul style="list-style-type: none"> On left tarsus A: Born in 1998, B: Born in 1999, C: Born in 2000, D: Born in 2001, E: Born in 2002 | <p>Hokkaido Institute of Environmental Sciences</p> <p>Yamashina Institute for Ornithology</p> |
| | | Yellow |  | <p>Teuri Island in Hokkaido since 1998</p> <ul style="list-style-type: none"> On left tarsus A: Born in 1998, B: Born in 1999, C: Born in 2000, D: Born in 2001, E: Born in 2002 | <p>Hokkaido Institute of Environmental Sciences</p> <p>Yamashina Institute for Ornithology</p> |

| | | | | | |
|----------|-------------|-------|---|--|--|
| | | Green |  | Esashi Island in Hokkaido since 1998 <ul style="list-style-type: none"> • On left tarsus • A: Born in 1998, B: Born in 1999, C: Born in 2000, D: Born in 2001, E: Born in 2002 | Hokkaido Institute of Environmental Sciences Yamashina Institute for Ornithology |
| | | Blue |  | Okushiri Island in Hokkaido since 1998 <ul style="list-style-type: none"> • On left tarsus • A: Born in 1998, B: Born in 1999, C: Born in 2000, D: Born in 2001, E: Born in 2002 | Hokkaido Institute of Environmental Sciences Yamashina Institute for Ornithology |
| | Japan | White |  | White rings with black letters (A**) were used on Rishiri Island in Hokkaido in 2002 | Hokkaido Institute of Environmental Sciences Yamashina Institute for Ornithology |
| Leg ring | South Korea | Green |  | Green rings with white three digits mainly on Hongdo Island in Gyeongnam Province since 2003 | Young-Soo KWON (National Park Research Institute) Wee-Haeng HUR (National Institute for Biological Resources) |
| | | Red |  | Red rings with white three digits on Dokdo Island in Gyeongbuk Province in 2010 | Young-Soo KWON (National Park Research Institute) Wee-Haeng HUR (National Institute for Biological Resources) |

For more information on color marked BTGs in Japan, please visit the following sites (ウミネコ移動分散調査 調査の目的と方法; Japanese only).

<http://www.hokkaido-ies.go.jp/topics/umineko/umineko.PDF>

http://kic.web.infoseek.co.jp/needs_seeds/BirdWatching/paper/markings/markings.htm



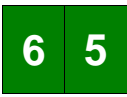
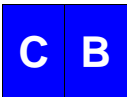
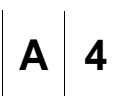
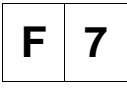




Black-tailed Gull with a RED wing tag

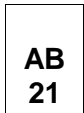
Banded on Teuri Island in Hokkaido, Japan in 2002.

Observed at Gyeongju, Gyeongbuk Province, Korea on 15 January 2005.

Photo by [Chang-Yong CHOI](#)

| Saunders's Gull (<i>Larus saundersi</i>) | | | | | |
|--|-------------|---|--|---|---|
| Type | Country | Color | Example | Notes | Contact information |
| Leg flag | China | Red |  | Shuangtai Estuary National Nature Reserve in Liaoning Province since 1996 (continued to 2006 at least) <ul style="list-style-type: none"> Combinations of alphabets and numbers as well as plain flags had been used. | Guogang ZHANG (National Bird Banding Center of China) |
| | | |  | | |
| | | Green |  | Yellow River Delta National Nature Reserve in Shandong Province since 2001 (continued to 2007 at least) | |
| | Blue |  | Yancheng National Nature Reserve in Jiangsu Province since 1999 (continued to 2008 at least) | Guogang ZHANG (NBBCC) | |
| | South Korea | White |  | Songdo reclaimed area in Incheon in 2003 and 2004 | Kisup LEE (Korea Waterbird Network) Jin-han KIM (NIBR) Kiyooki OZAKI (YIO) Yamashina Institute for Ornithology |
| | | |  | | |
| Japan | Yellow |  | Northern Kyushu since 2007 Some birds may carry PTTs (satellite transmitters). | Kiyooki OZAKI (YIO) Yamashina Institute for Ornithology | |

| Relict Gull (<i>Larus relictus</i>) | | | | | |
|---------------------------------------|---------|--------|---|--|------------------------|
| Type | Country | Color | Example | Notes | Contact information |
| Leg flag | China | Orange |  | Hongjianniao Lake in Yulin, Shaanxi Province since 2008. Codes used: 00-99, 0A-9Z, AA-ZZ. | Lu Jun |

| Mongolian Gull (<i>Larus mongolicus</i>) | | | | | |
|---|-------------------|-------|---|--|----------------------------------|
| Formerly also known as Herring Gull (<i>Larus argentatus</i>) | | | | | |
| Type | Country | Color | Example | Notes | Contact information |
| Wing tag | Mongolia & Russia | White |  | Since 2004 in NE Mongolia and Russia (Dauria and Baikal) <ul style="list-style-type: none"> On both wings, white wing tags with black four-character-code (upper row: two capital letters, lower row: two-digit number) | Andreas Buchheim |

Please visit the following site to read a general introduction of the tagging program and recent resighting records of the tagged Mongolian Gulls. <http://www.birdskorea.org/Birds/Flagging/BK-FL-Watch-for-Mongulls-2004.shtml>

One recent publication entitled '[Taimyr Gulls: evidence for Pacific winter range, with notes on morphology and breeding](#)' (Klaas van Dijk *et al.* 2011) contains a figure indicating Mongolian Gulls' migration records from Baikal in Russia.






Mongolian Gull (WHITE wing tags engraved 'AC38')
Banded at Airchan Nuur in Mongolia on 18 May 2005
Observed at Hongdo Island in South Korea on 13 Dec 2005
Photo by [Jong-Gil PARK](#)



Saunders's Gull (RED flag engraved '34')
Banded at Shuangtai Estuary NNR in Liaoning Province, China probably in 2001
Observed at Jongdal-ri, Jeju Province, Korea on 12 November 2003
Photo by [Heu-man KANG](#)

Taimyr Gull (*Larus taimyrensis*)

Also known as Heuglin's Gull (*Larus heuglini*), or formerly named Herring Gull (*Larus argentatus*)

| Type | Country | Color | Example | Notes | Contact information |
|----------|---------|--|---|--|---|
| Wing tag | Russia | Orange |  | In 2001-02, a total of 32 adults was marked at Medusa bay, Taimyr, central Russia. This project consists of orange wing tags with 2 black digits. | Sergei Kharitonov (BRC Russia) Bird Ringing Centre of Russia |
| Leg ring | Russia | Red |  | Red color rings engraved four digits were used at Mys Vostochny, Taimyr, central Russia <ul style="list-style-type: none"> 15 adults marked in 1995 with the red color-rings (K001-K015). | Bird Ringing Centre of Russia |
| | | Yellow |  | Two adults ringed in 2005 with an engraved color-ring on each leg. <ul style="list-style-type: none"> Yellow [3 horizontal bars] & Yellow [9] Yellow [Y] & Yellow [9] | Bird Ringing Centre of Russia |
| | | Similar or different kinds of engraved color-rings may be used (at least, for 12 adults in 2008), but details are not currently available. | | | |

For more information on this species (sometimes regarded as subspecies), please refer the recent article entitled '[Taimyr Gulls: evidence for Pacific winter range, with notes on morphology and breeding](#) (Klaas van Dijk *et al.* 2011; available on the [Gull Research Organisation \(GRO\)](#) webpage)'.



Taimyr Gull (ORANGE wing tags engraved '63')
Banded at Medusa bay in Russia on 25 June 2001
Photo by Leon Peters



Taimyr Gull (YELLOW leg rings engraved by black)
Banded at Mys Vostochny in Russia on 7 July 2005
Photo by Raymond Klaassen

| Black-headed Gull (<i>Larus ridibundus</i>) | | | | | |
|---|---------|--------|---|-------------------------|---|
| Type | Country | Color | Example | Notes | Contact information |
| Leg ring | Russia | Red |  | Since 1993 in Kamchatka | Bird Ringing Centre of Russia Nickolay GERASIMOV |
| | Japan | Green |  | Since 1993 around Kyoto | Yamashina Institute for Ornithology Hisashi SUGAWA |
| | | Yellow |  | Since 1993 around Kyoto | Yamashina Institute for Ornithology Takeshi WADA |
| | | Blue |  | Since 1993 around Kyoto | Yamashina Institute for Ornithology Takeshi WADA |

For more information on color marked BHGs in Japan, please visit the following site (Japanese only).


<http://www3.alpha-net.ne.jp/users/jbbajbba/YURICRENG.htm>

<http://www.mus-nh.city.osaka.jp/wada/OBSG/Lr-rings.html>


You may see a short movie clip on how to apply a color-ring to European BHGs.

<http://www.youtube.com/watch?v=UdSfmp49bSM>

Great Black-headed Gull or Pallas's Gull (*Ichthyaetus ichthyaetus*)

| Type | Country | Color | Example | Notes | Contact information |
|---------|---------|-------|---|---|------------------------|
| Legflag | China | Blue |  | Codes used: 50-96, 0A-9Z, AA-ZZ. Since 2006, coordinated by the National Bird Banding Center of China | Lu Jun |



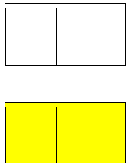
Brown-headed Gull (*Chroicocephalus brunnicephalus*)

| Type | Country | Color | Example | Notes | Contact information |
|---------|---------|-------|---|---|------------------------|
| Legflag | China | Red |  | Codes used: 01-09. Since 2006, coordinated by the National Bird Banding Center of China | Lu Jun |


Other terns (some *Sterna* spp. and *Chlidonias* spp.)



Little Tern (*Sterna albifrons*), Common Tern (*Sterna hirundo*), White-winged Black Tern (*Chlidonias leucopterus*), Whiskered Tern (*Chlidonias hybridus*), Crested Tern (*Sterna bergii*), Lesser Crested Tern (*Sterna bengalensis*), Caspian Tern (*Sterna caspia*), Bridled Tern (*Sterna anaethetus*)

| Type | Country | Color | Example | Notes | Contact information |
|---|---------|-------|---------|-------|---------------------|
| <p>Though there is no flyway-level protocol for these species, many terns have been color-flagged in Australia and other areas as per the EAAF shorebird protocols (http://www.eaaflyway.net/documents/wg/eaaf_shorebird_flag_2011.pdf).</p> | | | | | |


| | | | | | |
|----------|----------------------|--------------------------------|---|---|---|
| Leg flag | Australia | Orange |  | Victoria | ABBBS (Australian Bird and Bat Banding Scheme) |
| | | Yellow |  | NW Australia – includes individually engraved flags | ABBBS (Australian Bird and Bat Banding Scheme) |
| | China (Hong Kong) | White <i>over</i> Yellow |  | For Bridled Terns in Hong Kong | Carrie MA and Winnie KWOK (Agriculture, Fisheries and Conservation Department, Hong Kong SAR) Yat-tung YU (Hong Kong Birdwatching Society) |

Roseate Tern (*Sterna dougallii*)

| Type | Country | Color | Example | Notes | Contact information |
|----------|---------|-------|---|--|--|
| Leg flag | Japan | Blue |  | Breeding grounds in Okinawa (i.e. Yagaji Islands and Minna Island) | Kiyooki OZAKI (YIO) Yamashina Institute for Ornithology |

| | | | | |
|-----------|-------|---|---|---|
| Australia | Green |  | <p>Coral islands in the Swain Reefs, southern Great Barrier Reef.</p> <ul style="list-style-type: none"> Roseate Terns (and Black-naped Terns <i>Sterna sumatrana</i>) have been marked with a single, dark green leg flag on non-breeding grounds (i.e. Gannet Cay, Frigate Cay, Bylund Cay, Bacchi Cay, Price Cay, Thomas Cay), captured during the Austral winter only. | <p>Paul O'Neill (Dept. of the Environment, Water, Heritage and the Arts) ABBBS (Australian Bird and Bat Banding Scheme)</p> |
| Australia | White |  | <p>Coral islands in the Swain Reefs, southern Great Barrier Reef</p> <ul style="list-style-type: none"> Roseate Terns (and Black-naped Terns <i>Sterna sumatrana</i>) have been marked with a single, white leg flag on non-breeding grounds (i.e. Gannet Cay, Frigate Cay, Bylund Cay, Bacchi Cay, Price Cay, Thomas Cay), captured during the Austral summer only. | <p>Paul O'Neill (Dept. of the Environment, Water, Heritage and the Arts) ABBBS (Australian Bird and Bat Banding Scheme)</p> |


Ciconiidae (storks)

| Storks | | | | | |
|------------|---------|-------|---|---|------------------------|
| Type | Country | Color | Example | Notes | Contact information |
| Tibia ring | China | Red |  | Codes used: 00-99, 100-999, B00-Z99. Since 1985, coordinated by the National Bird Banding Center of China | Lu Jun |





| Oriental White Stork (<i>Ciconia boyciana</i>) | | | | | |
|--|---------|--------|--|---------------------------|---|
| Type | Country | Color | Example | Notes | Contact information |
| Leg ring | Russia | Yellow |  | Khinganski Nature Reserve | Bird Ringing Centre of Russia |

Ardeidae (egrets and herons)

Egrets and Herons

| Type | Country | Color | Example | Notes | Contact information |
|------------|---------|-------|---|---|------------------------|
| Tibia ring | China | Red |  | Codes used: 00-99, 100-999, B00-Z99. Since 1985, coordinated by the National Bird Banding Center of China | Lu Jun |

Swinhoe's Egrets (*Egretta eulophotes*)

| Type | Country | Color | Example | Notes | Contact information |
|----------|-------------|---|--|--|--|
| Leg ring | South Korea | Yellow, Red, Green, White, Orange, Blue, and Light Blue |     | <p>The combinations of plain color rings (not engraved) were applied to left, right, or both tibia(e) in 2002-2004 and in 2008.</p> <ul style="list-style-type: none"> • Main color used: Yellow, Red, Green, White, Orange, Blue, and Light Blue • More than 450 individuals in 10 breeding colonies along the west coast of Korea (Changguyeop Islet, Seomeobyeol Islet, Hwangseo Islet, etc). | Bo-Yeon HWANG (Kyunghee University) |

There is no flyway-level marking scheme for the threatened Swinhoe's Egrets. The other color markings could be used for some local researches, though no information is currently available. In example, a total of 381 chicks were color-banded on Sin-do (Shin-do) in South Korea in 1990-1991, and one was sighted again in Singapore in October 1992 (Mundkur 1993, BirdLife International 2001).







Swinhoe's Egret (LIGHT BLUE and YELLOW rings on its right tibia)
Banded on Hwangseo Islet in South Korea on 19 June 2008
Observed on Hwangseo Islet in South Korea on 8 August 2008
Photo by [Bo-Yeon HWANG](#)







Swinhoe's Egret (LIGHT BLUE and YELLOW rings on its right tibia)
Banded on Hwangseo Islet in South Korea on 19 June 2008
Observed on Baeknyeong Island in South Korea on 9 September 2008
Photo by [Jong-in CHOE](#)

Threskiornithidae (spoonbills and ibises)

Black-faced Spoonbill (*Platalea minor*)

| Type | Country | Color | Example | Notes | Contact information |
|----------|-------------|--------|---|--|---|
| Leg flag | Russia | White |  | <p>Furugelm Island in South Primorye since 2009</p> <ul style="list-style-type: none"> • RU** (since 2009) have been used. • In 2006 and 2007, plain color rings were used. | <p>Bird Ringing Centre of Russia BSCN (Black-faced Spoonbill Conservation Network)</p> |
| | South Korea | Red |   | <p>Breeding islets mainly in Incheon since 2002</p> <ul style="list-style-type: none"> • K31-K99 and K00 were used from 2002 to 2010 • E** have been used since 2010 • Some birds may carry plain color rings, PTTs and radio transmitters. | <p>Kisup LEE (Korea Waterbird Network) BSCN (Black-faced Spoonbill Conservation Network)</p> |
| | Japan | Yellow |  | <p>Naha in Okinawa since 2004</p> <ul style="list-style-type: none"> • Some birds may carry plain color rings, and PTTs. | <p>Kiyooki OZAKI (YIO) Yamashina Institute for Ornithology BSCN (Black-faced Spoonbill Conservation Network)</p> |

| | | | | |
|----------------------|----------|--|--|--|
| China (Hong Kong) | Green |  | <p>Mai Po, Hong Kong since 1998</p> <ul style="list-style-type: none"> Some birds may carry plain color rings, PTTs and radio transmitters. | <p>Yat-tung YU (Hong Kong Birdwatching Society)</p> <p>BSCN (Black-faced Spoonbill Conservation Network)</p> |
| Taiwan | Blue |  | <p>Tainan since 1998</p> <ul style="list-style-type: none"> Some birds may carry plain color rings and PTTs. | <p>Shih-hung WU (Kaohsiung Wild Bird Society)</p> <p>BSCN (BFS Conservation Network)</p> |
| | Black |  | <p>Tainan in 2003</p> <ul style="list-style-type: none"> Two rings (T20-T21) were used for birds recovered from the Botulism outbreak. | <p>Shih-hung WU (Kaohsiung Wild Bird Society)</p> <p>BSCN (BFS Conservation Network)</p> |
| | Chestnut |  | <p>Tainan in 2003</p> <ul style="list-style-type: none"> T22-T36 were used for birds recovered from the Botulism outbreak. | <p>Shih-hung WU (Kaohsiung Wild Bird Society)</p> <p>BSCN (BFS Conservation Network)</p> |

Most of the Black-faced Spoonbills may carry plain color rings as well as engraved rings; however, some may have only color rings without engraved rings (i.e. ringed in North Korea). More detailed information on color-ringed Black-faced Spoonbill are available on the 'Color-banded Black-faced Spoonbill Information System (<http://bfsn.bfsa.org.tw/index.php>)' managed by the Black-faced Spoonbill Conservation Network. You can report your observations online through this website.




Black-faced Spoonbill (RED ring engraved 'E37' and other color rings)
Banded on Gaksi-am Islet in South Korea on 1 July 2011
Photo by [Chang-Yong CHOI](#)



Black-faced Spoonbill (YELLOW rings engraved 'J01')
Banded on Okinawa Island in Japan on 10 March 2004
Observed on Okinawa Island in Japan on 11 Jan 2008
Photo by [Chang-Yong CHOI](#)

Phalacrocoracidae (cormorants)

| Cormorants | | | | | |
|-------------|---------|-------|--|---|------------------------|
| Type | Country | Color | Example | Notes | Contact information |
| Tarsus ring | China | Green |  | Codes used: A27-A99, A0-Z9, AA-ZZ. Since 2006, coordinated by the National Bird Banding Center of China | Lu Jun |

| Great Cormorant (<i>Phalacrocorax carbo</i>) | | | | | |
|--|---------|-------|---------|-------|---------------------|
| Type | Country | Color | Example | Notes | Contact information |
| <p>There is no international protocol for this species in the EAA Flyway.</p> <p>However, many Great Cormorants have been color-marked in Japan following the domestic protocol, and some may migrate to adjacent countries.</p> | | | | | |

Diverse shapes and colors were used for Great Cormorant marking in Japan; more information is available from the following sites.

Japanese Bird Banding Association: <http://www3.alpha-net.ne.jp/users/jbbajbba/KAWAUCRENG.htm>

Color-ringed Great Cormorants (Japanese): <http://www6.ocn.ne.jp/~cring973/colony.html>

The 'Colour-ringing Projects in Europe and Middle East' for Great Cormorants is available from the following site.

http://web.tiscalinet.it/sv2001/co_rings/cormo_cr_project1.htm

Last update: 09 April 2015

For more information or for error correction, please contact Dr. [Judit Szabo](#), the Science Officer of the EAAF Partnership Secretariat.