

# Bar-tailed Godwits

Identification guide to their colour-ringing projects in the East Atlantic Flyway



# Introduction

This guide gives an overview of the used colour-ringing schemes on Bar-tailed Godwits within the East Atlantic Flyway. All known schemes are included as registered by the International Wader Study Group (IWSG).

This guide starts with the project on Bar-tailed Godwits by NIOZ Royal Netherlands Institute for Sea Research, which started in 2001. Thereafter an overview is given of all other schemes, with the latest know addresses to send the observations.

If you come across projects which are not included here, if you can't find the right project, find mistakes or errors in the document or if you have better pictures of the schemes available, please contact [shorebirds@nioz.nl](mailto:shorebirds@nioz.nl)

Please also inform the IWSG if you come across a scheme which is not included in this document:  
[colourmark@waderstudygroup.org](mailto:colourmark@waderstudygroup.org)

We hope this guide may contribute to find the right colour-ringing scheme and encourage observers to submit their observations to the right project, and thus help the science of waders and conservation.

To find the projects on other shorebird species, please use the register on the website of the IWSG:

<https://www.waderstudygroup.org/projects/colour-marking/the-register/>

On behalf of the NIOZ shorebird group,

Job ten Horn  
Texel, August 2022



Royal Netherlands Institute for Sea Research

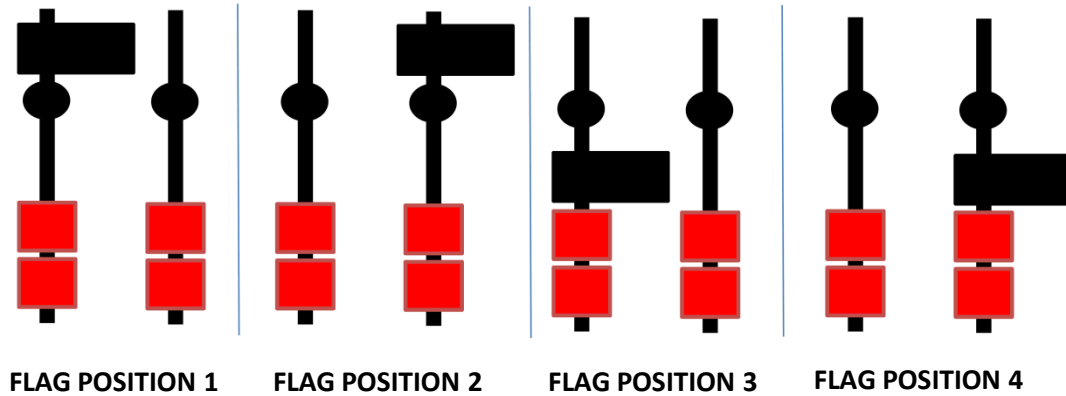
# Acknowledgement

Bar-tailed Godwits ringed with the scheme of NIOZ Royal Netherlands Institute for Sea Research involved contribution from others than NIOZ-employees. Contributions were made by several ringing groups and individual ringers, notably:

The ringing group in the dunes near Castricum (VRS Castricum), the ringing group Calidris on the island of Schiermonnikoog and the wilsternetters Joop Jukema, Catharinus Monkel, Jaap Strikwerda and Bram van der Veen.

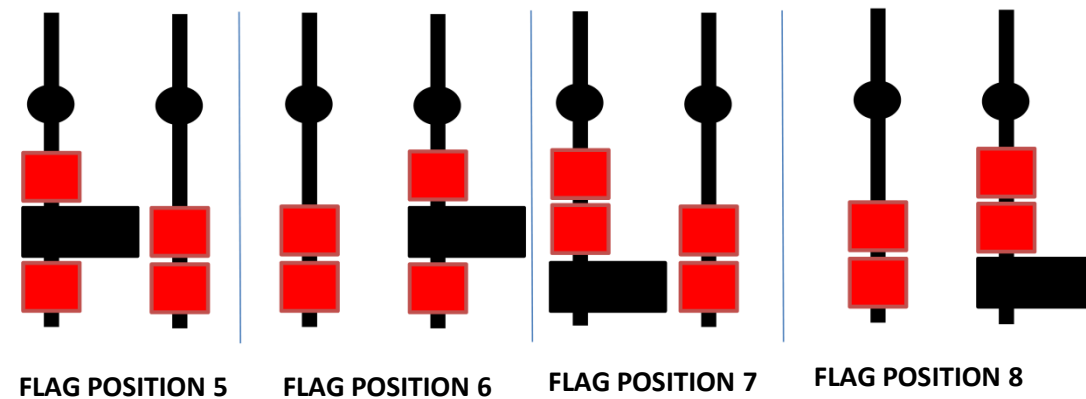
We also like to thank all observers who contributed by ring-reading and submitting their observations of individually marked Bar-tailed Godwits.

# Flag positions used by NIOZ



Combination of a flag and 2 cr rings on each tarsus.

Left and right is seen from the bird (looking over the back of the bird).

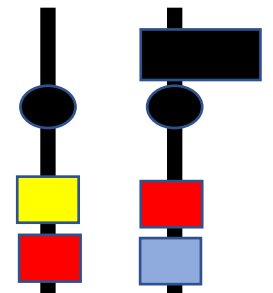


The code is written as follows:

- colour of the flag
- position of the flag
- then the cr rings, starting left tarsus top to bottom and then right tarsus top to bottom

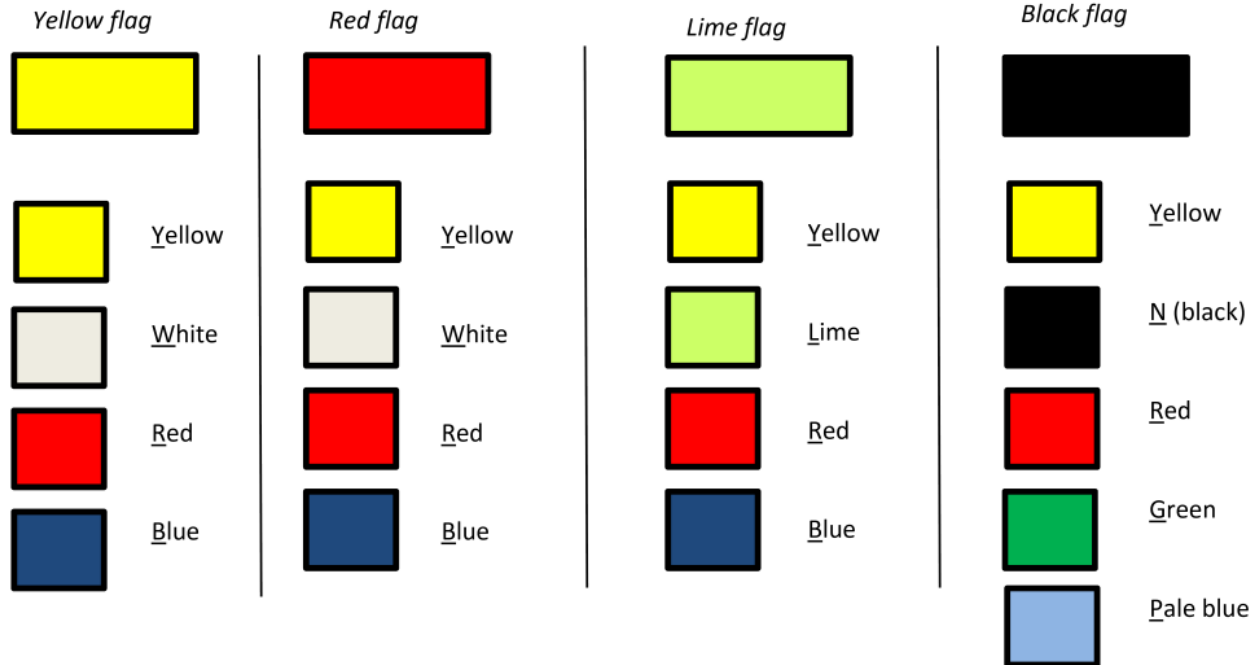
Example of written code: N2YRRP >

N = black, P = Pale blue



the metal ring is not part of the combination

# Flags and colours used by NIOZ since 2001



Time frame of used flag colours in chronological order

Yellow flags: 2001 - 2012

Red flags: 2006 - 2011

Lime flags: 2010 - 2014

Black flags: 2014 – current (2022)



# Black flag (N), in combination with 4 cr rings on tarsus



© Lee Collins

Project by: NIOZ Royal Netherlands Institute for Sea Research  
Location: Netherlands, Banc d'Arguin (Mauritania) and Bijagós Archipelago (Guinea-Bissau)  
Years: used from 2014 onwards

Email: [shorebirds@nioz.nl](mailto:shorebirds@nioz.nl)

Used colours: YNRGP

Position of flag identifies the location of ringing:  
N1 Texel, N2 West-Africa, N3 Terschelling,  
N4 Castricum, N5 Ameland, N6 Wadden Sea,  
N7 not used yet, N8 Terschelling

Picture: N3GRRG

*Black flag (N)*



Yellow



N (black)



Red



Green



Pale blue

# Lime flag (L), in combination with 4 cr rings on tarsus



© Ian Prentice

Project by: NIOZ Royal Netherlands Institute for Sea Research  
Location: Netherlands and Banc d'Arguin, Mauritania  
Years: 2010 – 2014

Contact: [shorebirds@nioz.nl](mailto:shorebirds@nioz.nl)

Used colours: YLRB

Note: be careful with discoloured Lime rings, see next page >

Lime flag



Yellow



Lime



Red



Blue

Picture: L4BBLR



# Lime flags: discolouration and wear



Lime rings and flags were used from 2 layered Darvic. These rings have a black inner layer and a Lime outer layer. Due to wear the rings are discoloured and some are even completely black. Please take care with observing these combinations, also between Blue and Lime rings (which went black) on large distances.

< L2LLBB note the complete black lower ring which was Lime

L8LRLR >  
the Lime flag is very worn and Lime rings and flag are getting black





# Red flag (R), in combination with 4 cr rings on tarsus



Project by: NIOZ Royal Netherlands Institute for Sea Research  
Location: Netherlands and Banc d'Arguin, Mauritania  
Year: 2006 – 2011

Contact: [shorebirds@nioz.nl](mailto:shorebirds@nioz.nl)

Used colours: YWRB

Note: be careful with discoloured Yellow and White rings, the difference can be very hard to observe in the field on a distance.

Picture: R2YBRR

Red flag



Yellow



White



Red



Blue

# Yellow flag (Y) in combination with 4 cr rings on tarsus



Project by: NIOZ Royal Netherlands Institute for Sea Research  
Location: Netherlands and Banc d'Arguin, Mauritania  
Year: 2001 – 2012

Contact: [shorebirds@nioz.nl](mailto:shorebirds@nioz.nl)

Used colours: YWRB

Note: be careful with discoloured Yellow and White rings, the difference can be very hard to observe in the field on a distance.

Picture: Y4YWRR

Yellow flag



Yellow



White

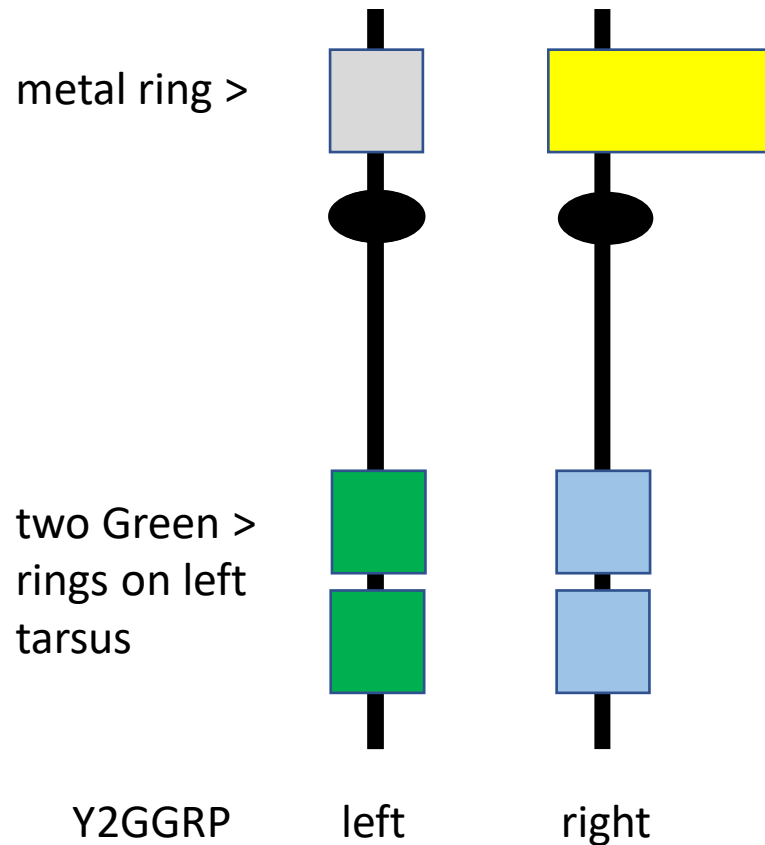


Red



Blue

# Yellow flag on right tibia and 4 cr rings on tarsus starting with Green Green



Project by: NIOZ Royal Netherlands Institute for Sea Research  
Location: Banc d'Arguin, Mauritania  
Year: 2022

Contact: [shorebirds@nioz.nl](mailto:shorebirds@nioz.nl)

Combinations starting with Y2GG

Left tibia: metal ring

Right tibia: Yellow flag

Left tarsus: 2 Green rings

Right tarsus: 2 rings, used colours YNRGP

In March 2022 17 Bar-tailed Godwits were ringed on the Banc d'Arguin, Mauritania with combinations starting with Y2GG..



# Incomplete combinations



Please submit observations of incomplete codes. Try to write down the sex of the bird and the position of the metal ring. A picture is much appreciated.

It's very hard to identify the bird on individual level, but all observations of incomplete combinations are stored within our database.

This combination is written down as YBYB



# Incomplete combinations



© Hannes Schäfer

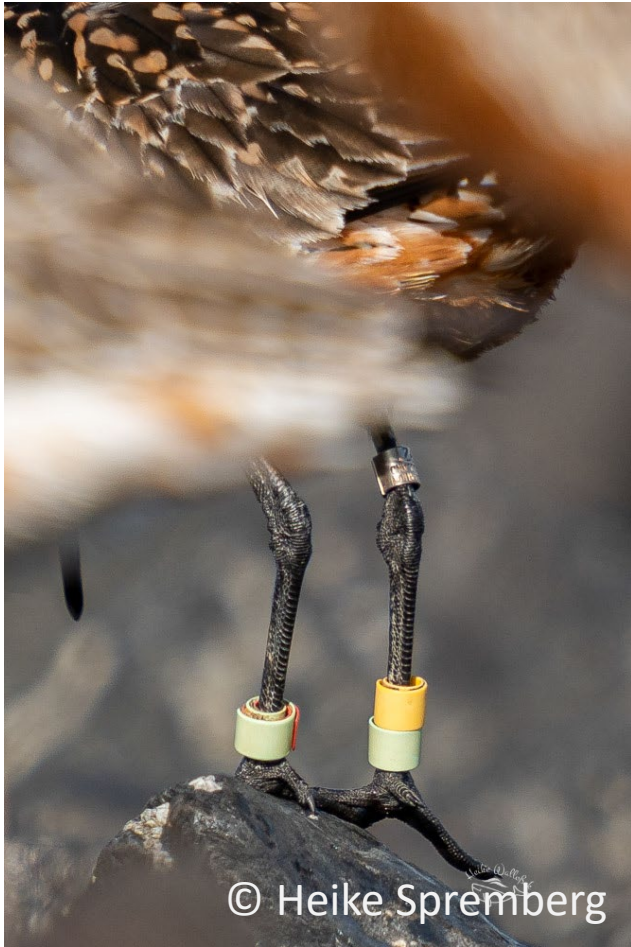
Y1WRYX >  
missing rings are written down as X

< RWYR with missing flag



© Gert Jan Verbeek

# Incomplete combinations



In some rare cases rings break into smaller pieces due to wear and fall within each other. Here you see a bird where the Red ring is fallen in the Lime ring. This combination can be written down as LRYL or RLYL.

Note that in some birds single layered Lime rings are used, as shown here on the picture. In most of these combinations the difference between Lime and Yellow rings is clear, but be aware that light conditions may affect colours.

If possible try to make pictures of the metal ring to read the ringnumber so we can try to identify the individual.

Incomplete combinations are likely to belong to the NIOZ scheme and could be reported to [shorebirds@nioz.nl](mailto:shorebirds@nioz.nl)

# Bar-tailed Godwits with tags and antenna's



© Gert Jan Verbeek

Since 2015 several bar-tailed godwits are tagged by the NIOZ in cooperation with ringing groups in Castricum, the Wadden Sea, Mauritania, Guinea-Bissau and Oman.

Different tags are used, solar panelled PTT tags with leg loop harasses and also glued atlas tags to measure the local movements within the Wadden Sea. These birds do have an antenna and it is much appreciated if pictures could be provided. For more information about tagged bar-tailed godwits visit these website:

<https://maps.nioz.nl/watlas>

<https://www.globalflywaynetwork.org/flyway/east-atlantic-flyway-coastal-waders>



# Other projects on Bar-tailed Godwits

The following pages show all known colour-ring projects on Bar-tailed Godwits in the East Atlantic Flyway.





# White flag with 3 digit inscription

POLAND



© Gert Jan Verbeek

Project by: Włodzimierz Meissner

Location: Poland

Years: > 2017

Email: [w.meissner@ug.edu.pl](mailto:w.meissner@ug.edu.pl)

Submit online: <https://ring.stornit.gda.pl/Default.aspx>

Left tibia: White marker

Right tibia: White flag with 3 digit inscription

Used inscriptions: 0-9 ACEHJKLMNPTUVX

# ENGLAND

## White flag with 2 digit inscription

Project by: Wash Wader Research Group

Location: The Wash, England

Years: > 2010

Email: [sightings@wwrg.org.uk](mailto:sightings@wwrg.org.uk)

Submit online: <https://wwrg.org.uk/contact-us/report-a-colour-marked-bird>



Left tibia: tall White flag with 2 digit inscription

Right tibia: White marker

Remarks: A-Z,1-9 (all possible combinations of letter and numbers)

Flags (15mm tall x 18mm flag projection); CR 15mm tall

# White flag with 2 digit inscription

ENGLAND



Project by: Wash Wader Research Group

Location: The Wash, England

Years: Orange marker >2016, Green marker >2019

Email: [sightings@wwrg.org.uk](mailto:sightings@wwrg.org.uk)

Submit online: <https://wwrg.org.uk/contact-us/report-a-colour-marked-bird>

Left tibia: tall White flag with 2 digit inscription

Right tibia: Orange or Green marker

Remarks: A-Z,1-9 (all possible combinations of letter and numbers).

Flags (15mm tall x 18mm flag projection); CR 15mm tall



# Black inscription ring and Orange marker



Project by: Paddy Jenks

Location: UK

Years: > 2018

Email: [paddy@aderynecology.co.uk](mailto:paddy@aderynecology.co.uk)

Left tibia: Orange marker

Right tibia: Black ring with 2 digit inscription

Used inscriptions: 0123456789

ACDFHJLNPTUVX

**ENGLAND**



# Orange inscription flag and Pale blue marker



© Phil Woollen

Project by: Richard de Feu

Location: UK

Year: > 2018

Email: [richard.dufeu@gmail.com](mailto:richard.dufeu@gmail.com)

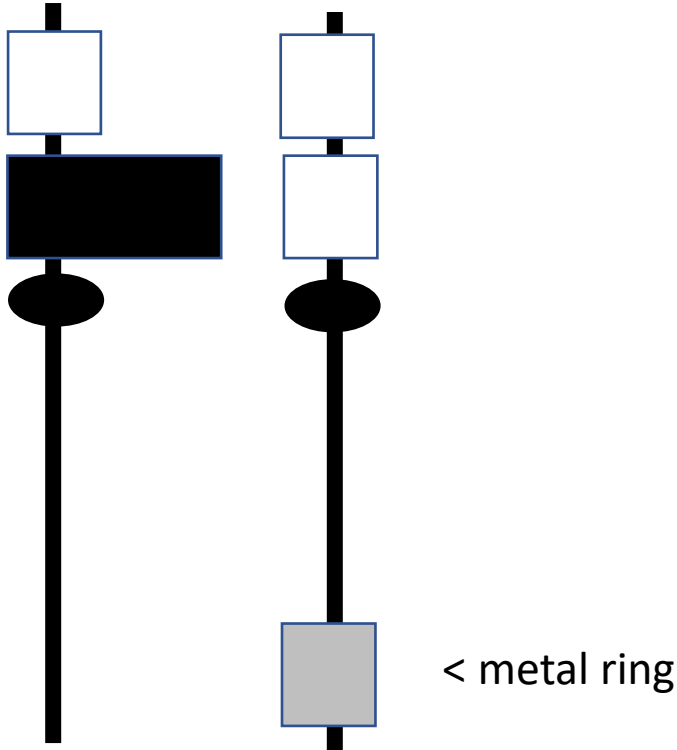
Left tibia: Orange flag with 2 digit inscription

Right tibia: Pale blue ring

Used inscriptions: ACEHJKLMNPTUVXY

**ENGLAND**

# Black flag and colour-rings on tibia



Project by: Humber Wader Ringing Group  
Ian Nicholson

Location: Humber estuary, England

Year: started January 2015

Email: [ian.n1000@btinternet.com](mailto:ian.n1000@btinternet.com)

Left tibia: colour ring above Black flag

Right tibia: 2 colour rings

Right tarsus: metal ring

Used colours: RYLGBONW

# Yellow ring with 2 digit inscription

# IRELAND



Project by: Birdwatch Ireland - Helen Boland

Location: Ireland

Years: > 2012

Email: [colourrings@birdwatchireland.ie](mailto:colourrings@birdwatchireland.ie)

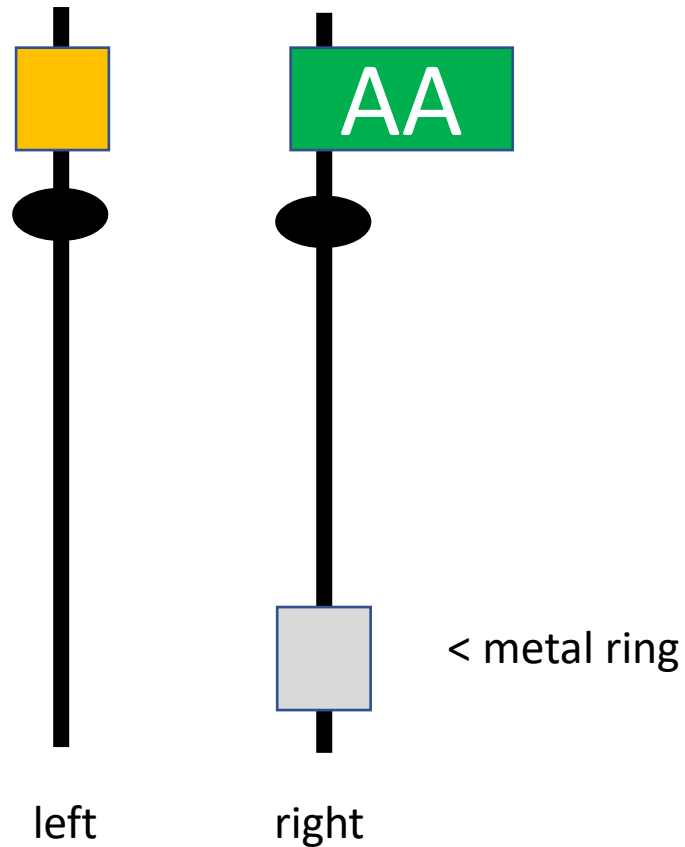
Online info: <https://birdwatchireland.ie/home-and-away-with-bar-tailed-godwits/>

Left tibia: 2 uncoded rings: upper ring Green, lower ring  
BYWRN

Right tibia: Yellow ring with 2 digit inscription, used inscriptions  
ABCDFHIJLNPSTUVXZ034679



# Green flag with Orange marker



Project by: Kendrew Colhoun

Location: Northern Ireland

Years: > 2019

Email: [kcolhoun@btinternet.com](mailto:kcolhoun@btinternet.com)

Left tibia: Orange marker

Right tibia: Green flag with 2 digit inscription

Used inscriptions: ACEHJLNPTUVX 0-9

## NORTHERN IRELAND

SPAIN

# 4 uncoded rings on right leg



© Álvaro Fernández Polo

Project by: Antonio Fernández Cordeiro

Location: Spain

Years: > 2011

Email: [antoniofcordeiro@hotmail.com](mailto:antoniofcordeiro@hotmail.com)

Left tibia: metal ring

Right tibia: Yellow ring

Right tarsus top:

RWOY

Right tarsus middle:

RWOGLNBY

Right tarsus bottom:

RWOGLBY

FRANCE

# Orange flag and cr-rings on tibia



Project by: Loic Jomat

Location: Moëze-Oléron, France

Years: > 2003

Email: [loic.jomat@lpo.fr](mailto:loic.jomat@lpo.fr)

Observation can be reported online:

<https://www.bargeaqueuenoire.org/base-limicoles/>

Left tibia: Orange flag with YBRWm

Right tibia: 2 rings, used colours WYORGLBN

Remark: all combinations possible, flag can be on left or right tibia, never 2 rings with same colour on same tibia



# Orange flag and cr-rings on tibia

FRANCE



© Gert Jan Verbeek

Project by: Loic Jomat

Location: Moëze-Oléron, France

Years: > 2003

Email: [loic.jomat@lpo.fr](mailto:loic.jomat@lpo.fr)

Observation can be reported online:

<https://www.bargeaqueuenoire.org/base-limicoles/>

Left tibia: Orange flag with YBRWm

Right tibia: 2 rings, used colours WYORGLBN

Remark: all combinations possible, flag can be on left or right tibia, never 2 rings with same colour on same tibia

# Orange flag and cr-rings on tibia

FRANCE



Project by: Loic Jomat

Location: Moëze-Oléron, France

Years: > 2003

Email: [loic.jomat@lpo.fr](mailto:loic.jomat@lpo.fr)

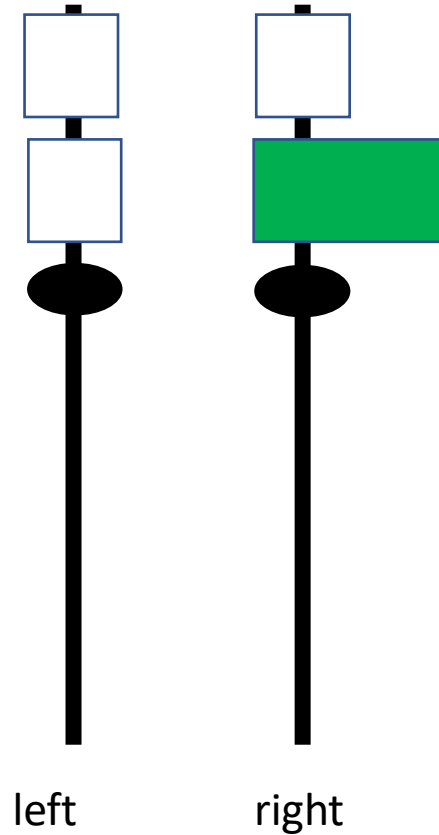
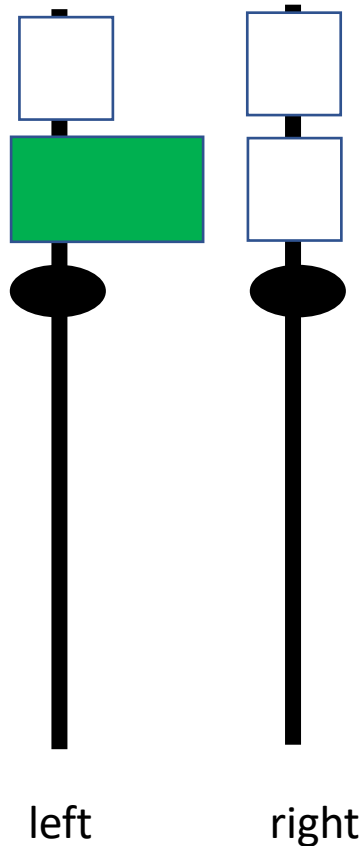
Observation can be reported online:

<https://www.bargeaqueuenoire.org/base-limicoles/>

Note that Orange flags can discolour to yellow, some of the older combinations in the project have discoloured Orange flags and rings.

FRANCE

# Green flag and cr-rings on tibia



< the Green flag can also be above the colour ring on the tibia

Project by: Loic Jomat

Location: Moëze-Oléron, France

Years: > 2021

Email: [loic.jomat@lpo.fr](mailto:loic.jomat@lpo.fr)

Observation can be reported online:

<https://www.bargeaqueuenoire.org/base-limicoles/>

Used colours are: WYORGLBN

metal ring on left or right tarsus



# White ring with inscription starting with JJ..



Project by: Tomas Aarvak  
Location: Finnmark, Norway  
Year: > 2011

Email: [tomas@birdlife.no](mailto:tomas@birdlife.no)

Observation can be reported online: <http://ringmerking.no/cr/>

Left tibia: Red marker

Right tarsus: white ring with 4 digit inscription starting with JJ..

Remarks: JJ fixed. ACEHJKLMNPRTUVXYZ. 0-9

JJ01

**NORWAY**

# Yellow inscription flag and Red marker



Project by: Kjell Mork Soot

Location: Norway

Years: > 2016

Email: [kjellmorksoot@fugler.com](mailto:kjellmorksoot@fugler.com)

Left tibia: Red marker

Right tibia: Yellow flag with 3 letter inscription

Used inscriptions: AAA-ZZZ  
(ACEHJLMNPSTUVXZ)

## NORWAY

# Oman: Lime and White flag on tibia



© Roeland Bom

Project by: Roeland Bom  
Location: Barr al Hikman, Oman  
Years: > 2008

Email: [shorebirds@nioz.nl](mailto:shorebirds@nioz.nl)

Left tibia: combination of Lime and White flag  
Right tibia: 3 cr rings

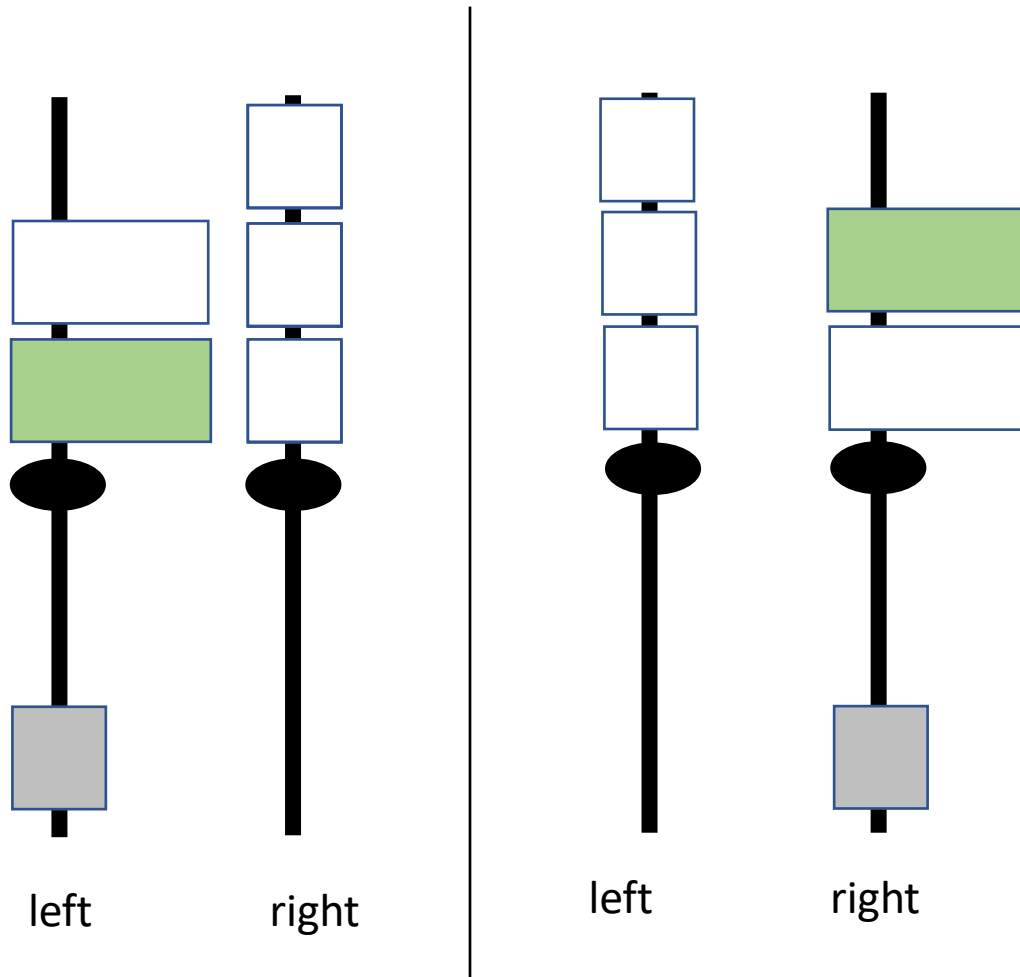
Left tibia: 3 cr rings  
Right tibia: combination of Lime and White flag

Remark: White and Lime flag on same tibia, on the other tibia 3 cr rings. Flags could be Lime above White or White above Lime. Used colours: WYORLGVN

See also the next page >



# Oman: Lime and White flag on tibia



Project by: Roeland Bom

Location: Barr al Hikman, Oman

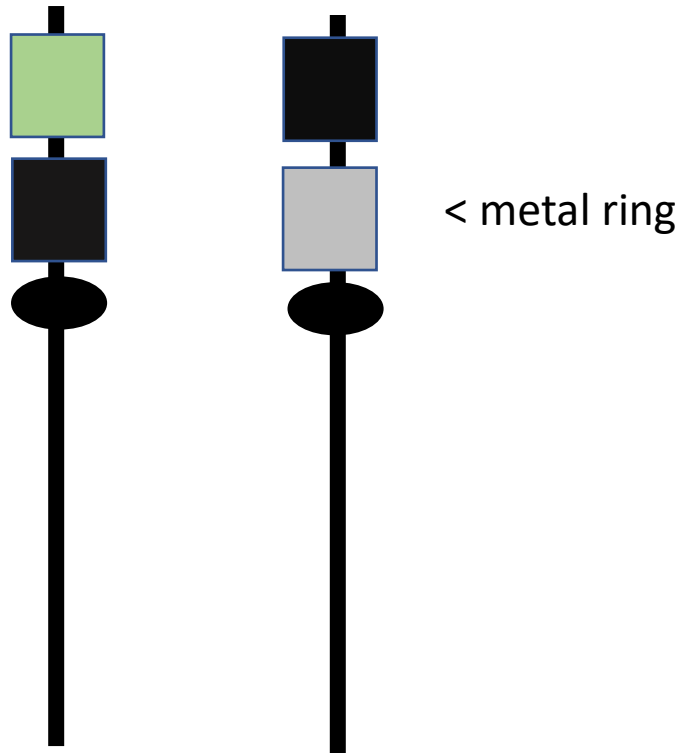
Year: > 2008

Email: [shorebirds@nioz.nl](mailto:shorebirds@nioz.nl)

Lime and White flag on tibia, could be left or right tibia and flags could be Lime above White or White above Lime. Used colours: WYORLGVN

The Bar-tailed Godwits wintering in Oman belong to the recently described ssp. *yamalensis* and migrate across central Asia to breeding areas on the West-Siberian Plain. Observations and tracking data show stopovers in UAE, Iran, India, and staging in the Caspian and Aral Sea during north and southward migration.

# Mystery scheme: all colour-rings on tibia



## Lime Noir / Noir metal

All rings on tibia

Height of cr rings: 10-12mm

Sex: male

This bird was observed on the island of Griend in the Dutch Wadden Sea in March 2022

On Terschelling (Dutch Wadden Sea) a bird with PN/Nm was seen in July and August 2019, which may relate to the same individual

Please contact [shorebirds@nioz.nl](mailto:shorebirds@nioz.nl) if you know to which scheme this bar-tailed godwit belongs.

# The following schemes are rare...

Bar-tailed Godwits with the following schemes have possibly gone extinct or very few individuals are still alive. Combinations could be incomplete, very worn and colours could be faded.

Please make pictures of these birds to confirm the origin.





# Dutch Wadden Sea: combination of rings



Project by: Leo Zwarts and Joop Jukema  
Location: Wadden Sea, the Netherlands  
Year: 1994

Email: [leozwarts46@gmail.com](mailto:leozwarts46@gmail.com)

Left tibia: Red Marker

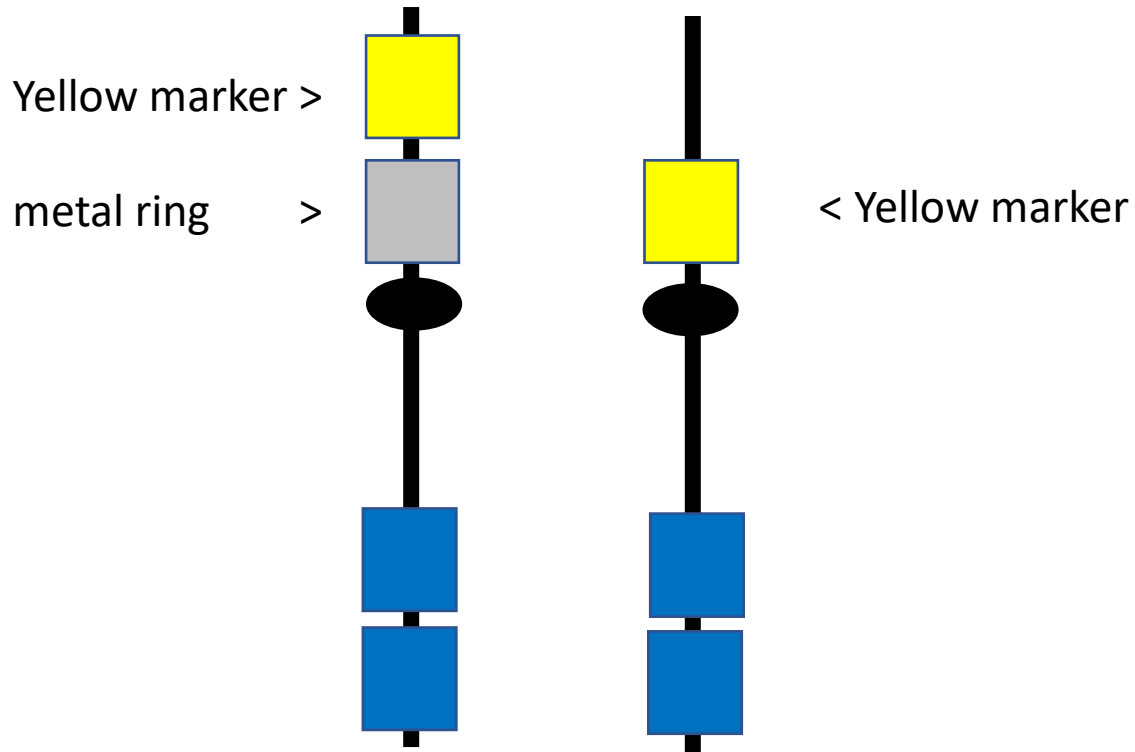
Right tibia: 2 rings on each tibia

Used colours: White, Red, Green and Black

Remarks: about 130 birds were ringed in 1994, probably all birds are extinct. Last observations from May 2019. Rings might look very worn as on picture.

© Dean Lloyd

# German Wadden Sea: combination of rings



Project by: Klaus Günther

Location: Wadden Sea, Schleswig-Holstein, Germany

Years: before 2002

Email: [k.guenther@schutzstation-wattenmeer.de](mailto:k.guenther@schutzstation-wattenmeer.de)

Left tibia: Yellow ring and metal ring

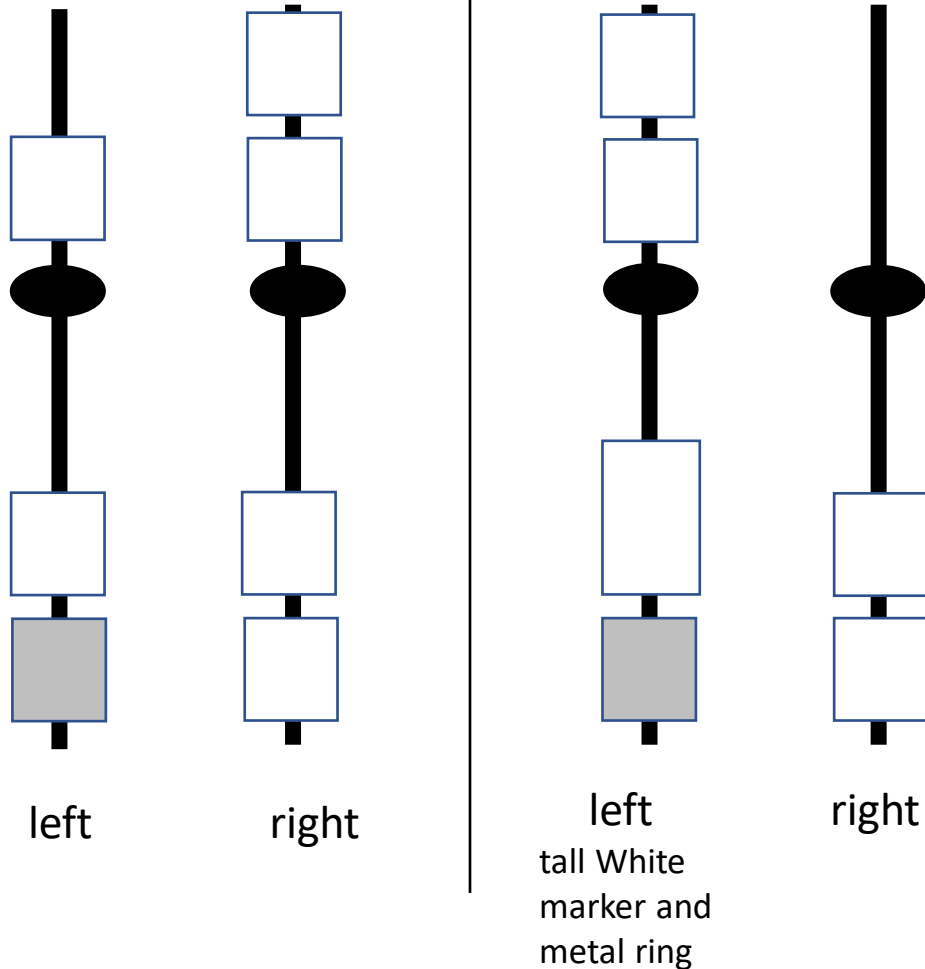
Left tarsus: combination of 2 rings YORB

Right tibia: Yellow ring

Right tarsus: combination of 2 rings YORB

Remarks: birds have 6 cr rings and metal ring

# UK: combination of rings



Project by: Robin Ward

Location: UK

Years: scheme stopped in 2001

Email: [rmward1963@btinternet.com](mailto:rmward1963@btinternet.com)

Left tibia: single ring, used colours WYORLGN

Left tarsus: WYORLGN and metal ring

Right tibia: 2 rings, used colours WYORLGN

Right tarsus: 2 rings, used colours WYORLGN

And

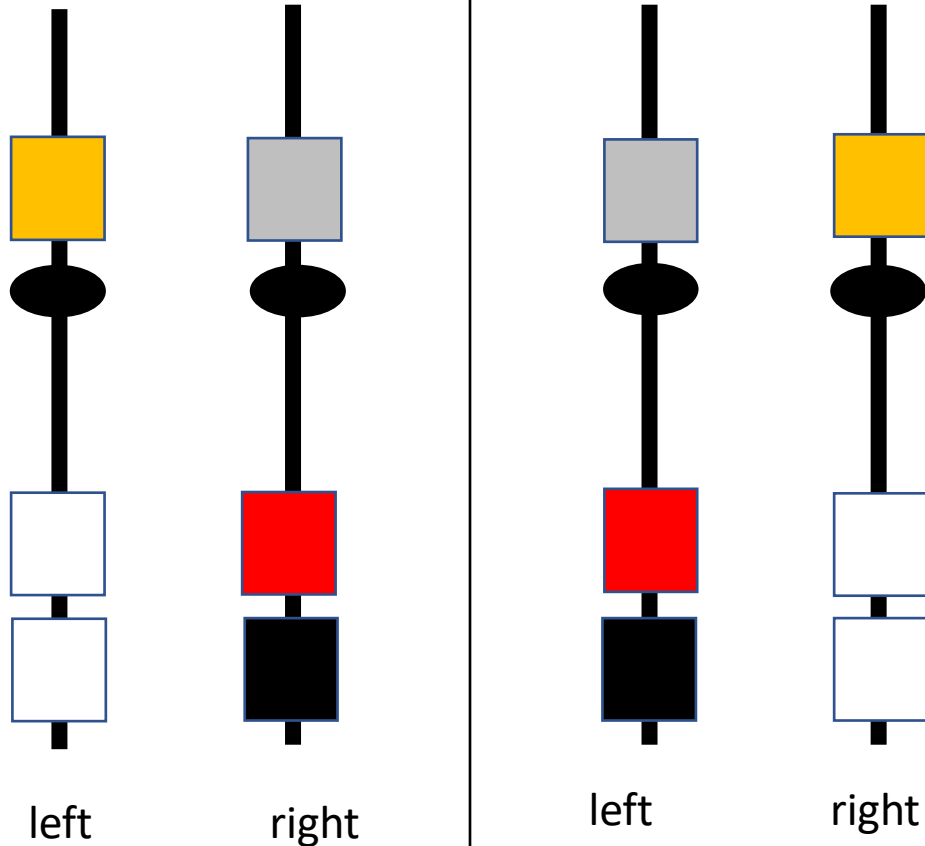
Left tibia: 2 rings, used colours WYORLGN

Left tarsus: tall W ring and metal ring

Right tibia: 2 rings, used colours WYORLGN



# Spain: combination of rings



Orange ring on tibia and Red and Black ring on tarsus are markers of this project

Project by: JAD Garcia

Location: Spain

Years: before 2002

Email: unknown

Left tibia: Orange ring

Left tarsus: 2 rings, used colours WYORCLGPBVN

Right tibia: metal ring

Right tarsus: 2 rings, Red and Black (N)

And

Left tibia: metal ring

Left tarsus: 2 rings, Red and Black (N)

Right tibia: Orange ring

Right tarsus: 2 rings, used colours WYORCLGPBVN