

BirdMark

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BTO Codes Guide for BirdMark.net

The British Trust for Ornithology developed a comprehensive method for the coding of colour marks on birds. These BTO Codes have been adopted by BirdMark and this document is a quick guide for the coding of colour marks used on the legs of birds. For a full guide see [here](#).

A typical BTO code:

RAPFN(123),YF;LBG

The code is split into individual parts, which translate to “on the **R**ight leg **A**bove the “knee” a **P**ale-Blue **F**lag with **N**iger (black) engraving **123**, over a **Y**ellow **F**lag, and on the **L**eft leg **B**elow the “knee” a **G**reen ring”:

RA P F N(123) , YF ; LB G

The first two characters denote the position relative to the “knee” of the bird:

LA = left above
LB = left below

RA = right above
RB = right below

Next, we denote the colour of the ring or flag:

R = Red	P = Pale Blue	W = White
O = Orange	G = Dark Green	C = Dark Pink (Carmine)
L = Light Green (Lime)	K = Light Pink	N = Black (Niger)
B = Blue (Dark)	M = Metal	V = Violet/Mauve/Purple
Y = Yellow	S = Silver/Grey	

Next, if the colour mark is a flag rather than a ring, **F** is added. Thus, if the bird has:

- on the **R**ight leg **A**bove the “knee” an **O**range ring:

RAO

- on the **L**eft leg **B**elow the “knee” a **Y**ellow **F**lag:

LBYF

If there are multiple colour marks at the same position (e.g. Right Below), they are listed from top-down, separated by commas (,):

- **Right leg Below** the “knee” a **Red Flag**, over a **Metal ring**:

RBRF,M

If colour marks are on multiple different positions, each position code is separated by a semicolon:

- **Left leg Above** the “knee” an **Orange Flag**, and another on the **Left leg Below** the “knee” a **Dark-Green Flag**:

LAOF;LBGF

If the colour mark has digits engraved these are recorded after the mark's colour code in parentheses. The colour of the digits is required, either N (black) or W (white), followed by parentheses that enclose the engraving (between 0 and 5 characters):

- **Left leg Below** the “knee” an **Orange Flag** with **Niger** (black) engraving **XSL**:

LBOFN(XSL)

- **Right leg Above** the “knee” a **Yellow Flag** with **Niger** (black) engraving **XSL**, and another on the **Left leg Below** the “knee” a **Blue Flag**:

RAYFN(XSL);LBBF

Observations of colour marks can sometimes lead to partial or incomplete records. In these cases a “?” character can be used for the missing information, which can be e.g. a colour code or engraving character or in place of the Left or Right indicator for the mark position. For example, if the engraving colour is not visible, as well as only part of the engraving can be read, then a code such as LBOF?(AH?) could be used.

The position of metal bands can be ignored and need not be included in the BTO Code.

[Most birds in the East-Asian Australasian Flyway](#) have up to two flags. However, also birds with 1 flag and 4 rings can be seen, resulting in rather lengthy and complicated BTO codes. Therefore, for these 1 flag and 4 colour band combinations a special coding scheme is being used, which you can find [here](#).