

# Switch of flyway by a Ruddy Turnstone *Arenaria interpres*

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On 30 January 2009, C.J. (Kees) de Graaf spotted a Ruddy Turnstone with a bright yellow colour-flag on its right tibia with black inscription AAY on a beach at Puerto Colombia, about 100 km west of Cartagena, Colombia, South America (11°00.10'N, 74°57.10'W). Because of the debris on the beach and frequent disturbance by people, he could not see if the bird had any other colour-rings. The bird was in a group of about 100 Ruddy Turnstones, all in winter plumage.

This was quite a coincidence because at home in the province of Noord Holland, the Netherlands, Kees contributes to our local colour-ringing project by reading many Ruddy Turnstone flags of exactly the same type. In this project Ruddy Turnstones are individually marked with a yellow colour-flag with inscription of three capital letters in black on the right tibia. A yellow ring is placed on the right tarsus in addition to the metal ring.

A check with the coordinator of the International Wader Study Group Colour Mark Register (Mark Collier), the British Trust for Ornithology (Nigel Clark), the Australasian Wader Studies Group (Clive Minton), the Calidris Association of Colombia (Richard Johnston-Gonzalez), Fernando Angulo Pralongo (Peru), Nathan Senner (U.S.), the U.S. Fish & Wildlife Service (Brad Andres) and the Canadian Wildlife Service as coordinator of the Pan American Shorebird Program ([www.cws-scf.ec.canwrc-cnrf](http://www.cws-scf.ec.canwrc-cnrf)) confirmed that no other scheme uses a yellow colour-flag with inscription on Ruddy Turnstones or a similar colour which could give confusion. The only other colour flags in use with an inscription are lime green (used mainly on Ruddy Turnstones caught in Delaware Bay on the U.S. east coast). Though Kees did not see the additional yellow ring, we assume that the bird in Colombia with code AAY must have been one from our project.

AAY was caught and ringed as a first-year/first-winter bird on 6 January 2008 on an inland polder at Groote Keeten (52°51.00'N, 4°44.00'E), the Netherlands. In winter mixed groups of Northern Lapwings *Vanellus vanellus*, Eurasian Golden Plovers *Pluvialis apricaria*, European Starlings *Sturnus vulgaris* and coastal waders feed on inland meadows. The latter join in when tides are unfavourable for foraging along the coast.

Apart from AAY, all but one out of the fifteen Ruddy Turnstones caught on 6 January have been reported in the following seasons at a nearby coastal site, two were last seen in spring 2008, four in autumn 2008 and seven in spring 2009. The fact that AAY did not show up in our area in the 2008/2009 season is an extra argument that the Turnstone in Colombia was indeed our AAY.

The majority of Ruddy Turnstones wintering along the Atlantic coast of Europe breeds in the Axel Heiberg and Ellesmere islands (NE Canada) and Greenland (del Hoyo *et al.* 1996). They normally do not mix with birds of the other two populations breeding in North America. The population breeding across the central North American Arctic winters along the Pacific coast of the United States down to Tierra del Fuego (E Alaskan birds) and from South Carolina and the Caribbean to S Argentina (Canadian birds) (Morrison

1984). The population breeding in western Alaska migrates to wintering areas in SE Australasia and Pacific islands (Morrison 1984).

A switch between the East Atlantic and the West Atlantic flyway has not been reported to take place regularly in Ruddy Turnstones, nor for other species having a similar distribution of geographical races, such as Red Knot *Calidris canutus* and Ringed Plover *Charadrius hiaticula*. According to the Dutch Bird Ringing Centre (Vogeltrekstation Arnhem) no other Ruddy Turnstone ringed in the Netherlands (6,664 ringed altogether) has been recovered from Central or South America (H. van der Jeugd, pers. comm.).

The Euring web log mentions one recovery of a European ringed Ruddy Turnstone (out of 3,509 recoveries) in the United States ([www.euring.org/edb](http://www.euring.org/edb); updated 28 Feb 2008). This bird was ringed in Scotland and found dead in a snowstorm in South Carolina (Nigel Clark, pers. comm.). Recoveries of Red Knot and Ringed Plover show a similar pattern: of 2,079 recoveries of Red Knots ringed in Europe, one was reported from the Caribbean, and of 4,359 recoveries of Ringed Plovers ringed in Europe, one was reported from the east coast of Canada (Newfoundland).

We can think of two explanations for this switch in wintering sites. One is that AAY belongs to the NE Canada/Greenland population and in its first winter traditionally crossed the North Atlantic to follow the East Atlantic flyway along the European coast, but in its second winter it took the West Atlantic flyway to tropical S. America by accident.

The other possibility is that it belongs to the population that breeds in central North America and normally winters in Central or South America. On its first migration southward it was driven off course towards Europe. After returning to its breeding grounds AAY followed the normal route in its second winter and succeeded in migrating to its regular/traditional winter quarters.

The first explanation seems not plausible because the migration route is genetically controlled and there seems no good reason why AAY should have followed another route. Because the breeding grounds of the different populations are well separated (del Hoyo *et al.* 1996) it is also unlikely that AAY joined a group of birds from the North American population which flies southwards.

The second explanation seems more plausible. On their autumn migration large numbers of passerines and waders cross the western Atlantic from North to South America (Alerstam 1990). They set out from North America in strong northwest winds behind a depression (cold front) and fly out far over the Atlantic. Their flight path changes to a southwest direction when they meet the northeast trade-winds. Their migration route forms an arc across the sea before they can approach South America and during their flight they can get off course as a result of the strong west to south-west winds caused by deep depressions. Inexperienced juvenile birds are particularly at risk (Alerstam 1990). The White-rumped Sandpiper *Calidris fuscicollis* is an example of a wader coming from the same breeding grounds in the central North

American Arctic as the Ruddy Turnstone which is reported regularly in Western Europe.

Our observation shows that a switch between the East and West Atlantic flyways is possible in Ruddy Turnstones breeding in North America.

Ruddy Turnstones breeding in the central North American Arctic and arriving in Europe as vagrants cannot be distinguished by plumage or biometric data from Ruddy Turnstones which regularly winter or pass through Western Europe (Engelmoer & Roselaar 1998). Their presence can only be detected by ringing recoveries. The use of colour-rings and flags increases the chance of sightings considerably and therefore recognition of vagrants. Therefore international co-ordination of colour-ringing schemes is very important; not only within but also between continents to prevent duplication of schemes and to facilitate the reporting of resightings.

We suggest facilitating the exchange of information between all continents about colour ring schemes of species which breed in adjacent arctic regions, have different flyways and cannot be distinguished in the field, like Ruddy Turnstone, Red Knot and Ringed Plover.

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