

The Spoon-billed Sandpiper is one of the rarest migrant birds in the world. It is declining at an alarming rate and will become extinct within the next decade without our help. We still have a lot to learn about their breeding areas, migration routes and wintering areas so every record adds valuable information. Your help with this is crucial!

Your records will contribute to an international database of Spoon-billed Sandpiper sightings made by birdwatchers all across Asia and beyond. This information will be used to help inform conservation decisions and actions, so that we can best decide when, where and how to help these special birds.

This leaflet explains the moult and plumage patterns of Spoon-billed Sandpipers to help you record as much information as possible.

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Spoon-billed Sandpipers are true long distance migrants breeding in arctic Russia and wintering around the coasts of South-East Asia. The areas and months below show the most likely places for Spoon-billed Sandpipers to be found but we still have a lot to learn.

If we do not know where they are, we have no chance of helping them.

|   | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---------|----------|-------|-------|-----|------|------|--------|-----------|---------|----------|----------|
| <i>Likely locatons</i>  |         |          |       |       |     |      |      |        |           |         |          |          |
| Russian breeding grounds  |         |          |       |       |     | ■    | ■    | ■      |           |         |          |          |
| <i>Northern stopover sites:</i> Russian east coast between Sakhalin and Kamchatka   |         |          |       |       | ■   |      | ?    | ■      | ■         |         |          |          |
| <i>Southern stopover sites:</i> Japan, Democratic Republic of Korea, Republic of Korea, mainland China  |         |          |       | ■     | ■   |      |      | ■      | ■         | ■       | ■        |          |
| <i>Wintering sites:</i> China, Vietnam, Thailand, Myanmar, Bangladesh, India and others still unknown   | ■       | ■        | ■     | ?     |     |      |      | ?      | ?         | ■       | ■        | ■        |
| <i>First summer stopover/moulting sites:</i> Countries are still uncertain. Some in China but probably most are the same as the wintering sites |         |          |       |       | ■   | ■    | ■    | ■      |           |         |          |          |

## The plumages of Spoon-billed Sandpipers throughout their life

■ Red shows a month when a bird is likely to be in a plumage

■ Yellow shows a month when a bird is likely to be transitioning between plumages

[illegible]



## The plumages of Spoon-billed Sandpipers in their first year of life

The most variation in Spoon-billed Sandpiper plumage occurs on the back. If you can get a good view it should be possible to distinguish four different plumages. Even a poor picture will help to confirm your observation.

### Juvenile plumage

Dark feathers getting paler towards the base but with a buff edge.



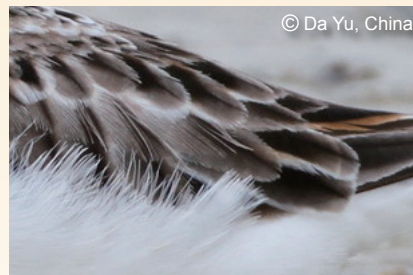
### Winter plumage

Grey feathers with a thin dark streak down the middle. Note: back feathers of first winter birds are indistinguishable from adults.



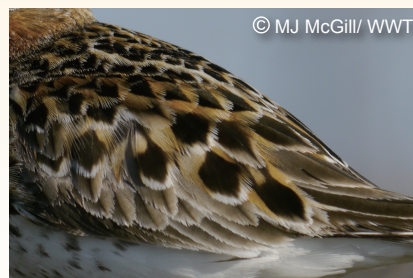
### First summer plumage

Only some feathers replaced. Most of these have a dark centre but a grey/ white edge. Only a few have any chestnut in them.



### Adult breeding plumage

Most back feathers replaced with black feathers with chestnut sides and white/grey tips. The chestnut rapidly fades to orange/yellow.



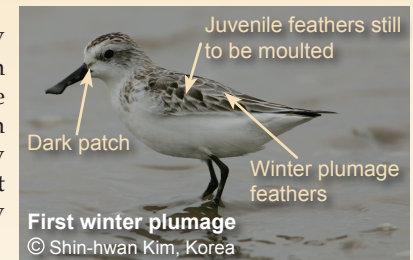
**Just-fledged juveniles** can be identified by the generally buff plumage on their back and head. Each feather on the back has a dark centre bordered by a buff/yellow edge giving the back a scaly appearance. They lack any red on the head, unlike an adult breeding bird.



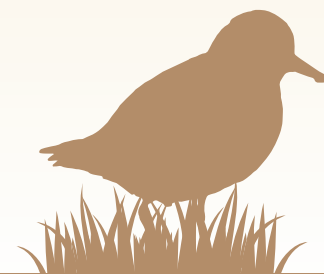
**In September, juveniles** still have the same features as a bird that has just fledged but the plumage has faded, making them look much duller. The scaly back is still evident, but not as distinct as in July.



**First winter** birds moult most of their body feathers so that they are very difficult to tell from adult wintering birds. They do retain the juvenile lesser and median coverts which look scalloped in October. The edges of these feathers wear quickly and by mid-winter this feature is very difficult to see in the field. They also tend to retain a very small, dark patch at the base of the bill.



**First summer** birds only have a few summer plumage feathers so they appear to have a spotty breast. Any back feathers that are moulted have dark centres but very little of the chestnut edges that are found in adults.





## The plumages of adult Spoon-billed Sandpipers

Adult Spoon-billed Sandpipers have two main plumages a year, which they change between during Spring and Autumn. The amount of breeding plumage is coded as follows: 1- full winter plumage; 2 - a few breeding plumage feathers; 3 - 25% breeding plumage; 4 - 50% breeding plumage; 5 - 75% breeding plumage; 6 - a few winter plumage feathers remaining; 7 - full breeding plumage. It is important to remember that the breeding plumage fades quite rapidly so the same bird will look much brighter in May than it will in August, even though it has not changed any feathers.



Adult winter plumage  
Plumage 1  
© Chenlin, China

**Adult winter plumage** shows an even grey back contrasting with the white breast. The head also appears very white in comparison to all other waders, apart from Sanderling. This bird has a plumage code 1.



Plumage 3  
© Simon Buckell

**25 per cent summer plumage** in April when new breeding plumage feathers are being grown. The feathers on the back look uneven as they do not all grow at the same time. This bird has a plumage code 3.



Plumage 5  
© Chiang, Ghung-Yu

**75 per cent summer plumage.** By now all the back feathers have grown but the head and breast feathers are still actively growing. This bird is unlikely to attain a very bright summer plumage. It has a plumage code of 5.



Adult summer plumage  
© MJ McGill/ WWT

**Adult summer plumage.** This is easily distinguished by the chestnut/red head and throat. Upper breast is spotted and the back has feathers with black centres bordered by chestnut edges. Sometimes a few winter plumage back feathers are retained. The red colour rapidly fades in sunlight so they appear much paler by the time they are moving south after breeding. This bird has a plumage code 7.

## Understanding the moult and plumage patterns of Spoon-billed Sandpipers



Six feathers dropped



Feathers starting to regrow



Outer feather half grown

### Wing and tail moult

They undergo this main moult in August, September and October, after breeding. The most important feathers to moult are the 10 outer flight feathers (primaries) which are replaced sequentially from the inside out. First summer birds that do not go to the breeding grounds start to moult in July. This is followed by any failed breeders. The latest to start moult are the successful breeding birds. Moulting is very energy-demanding and the bird will have reduced flying ability at this time, so they need good food supplies and safe roost sites nearby. If it is possible to get pictures of birds with their wings open we can work out how far through moult they are. This will help to understand where they go through their wing moult.

*This sequence of photos shows how Spoon-billed Sandpipers go through their annual wing moult. As soon as they arrive at a safe moulting site they drop the inner four to six of the ten primary feathers (left). In a few days new feathers appear (middle). As these continue to grow, they drop the next feather and so on until all ten have been replaced. The last feather is only moulted when most of the inner ones have regrown (right). During this time they replace all of their body feathers as well, but this is normally only visible when the inner primaries are half grown or more. They then rapidly change from summer plumage to winter plumage completing their body moult by the time the last primary has grown.*

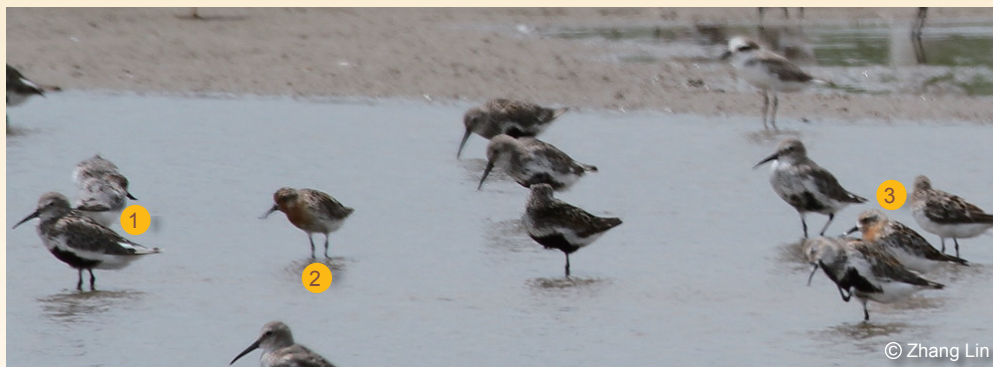


## Recording colour-marked Spoon-billed Sandpipers

As part of the conservation effort to save the species, small numbers of Spoon-billed Sandpipers will be marked with a leg flag with two characters on it. The colour of the flag and the characters identify each bird individually. In addition, there are a few colour-ringed birds alive that were marked before 2007 with colour rings and leg flags without any characters on them. Every sighting of any of these birds will be of great value, but it will be equally valuable to record the locations of individuals that are definitely not marked.



The colour-marked bird in the picture above would be recorded as follows:  
Above the 'knee' left leg metal above a lime flag, below a yellow colour ring.  
Above the 'knee' right leg nothing, below yellow colour ring.  
Note you record the bird's left, not left as you look at the bird!  
More information on colour-marking birds, including useful brochures, can be found at: <http://www.eaaflyway.net/coordination-of-marking.php>.



The picture above has three Spoon-billed sandpipers in it. The following would be the most useful information to record:

Date: 28 August 2012. Place: Rudong, China. GPS coordinates: unknown. Observer: Zhang Lin. Three birds seen standing in shallow water.

Bird 1 in near full winter plumage (code 2). It is not possible to see its legs.

Bird 2 in near full breeding plumage (code 6). Upper legs seen clearly - definitely no marks above the 'knee', lower legs only partly visible so not certain that there were no marks.

Bird 3 had about 75% breeding plumage (faded) (code 5). Not possible to see its legs.

None of the birds seen in flight.

**Even if you see what you think is the same bird the next day  
please send in the same detail of information**

## What should you record if you see Spoon-billed Sandpipers ?

First, can you get a picture? Do not disturb the bird to get a picture, but if it is possible it will help in the identification of age and plumage state.

### Important information

- ◆ Record the date, time, place in as much detail as possible (GPS coordinates if possible) and the observer's name.
- ◆ Could you see the bird well enough to be sure if it was colour-marked with leg flags or colour rings?
- ◆ If you could see the bird well enough, was it marked?
- ◆ If yes, what were the markings? If it has a flag are there any characters on it? Getting detailed markings correct is vital, so if you are not certain, only record what you are certain about. Then you can explain in as much detail as possible any parts that you were not certain about. (See the picture on the previous page for an example of a colour-ringed and leg-flagged bird).
- ◆ What plumage was the bird in? (If possible, use the codes described on page 5 of this leaflet). If it was moulting between two plumages record as much as you can about it.
- ◆ If it is between August and October, and it was seen with its wing stretched, could you see how far the bird was through wing moult? Please explain what you see.

### Additional information

- ◆ It would be useful to record what other shorebirds (waders) were in the area and whether it was likely that you saw all the Spoon-billed Sandpipers that were present.
- ◆ Were there any threats to the shorebirds that you are aware of?

Send the information as soon as possible to your national ornithological society (you can find a list of BirdLife Partners and their contact details at: <http://www.birdlife.org/worldwide/national/index.html>) AND ALSO to the Spoon-billed Sandpiper Task Force at [sbsrecords@eaaflyway.net](mailto:sbsrecords@eaaflyway.net)



For further information go to: <http://www.eaaflyway.net/spoon-billed-sandpiper.php>



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