

Spoonbill ringers manual

Introduction

The Spoonbill *Platalea leucorodia* is an endangered bird species. The Spoonbill is a large white wading bird, mainly living in wetlands, estuary and coastal areas. Especially these habitats are lost or its surface decreased enormous in the past century due to house building, industry, farmland (drainage, poldering) and the intensive use by tourism (swimming, sailing, surfing and fishing). For its food resources the Spoonbill is dependent on smaller aquatic animals like fish, shrimps and water insects that live in undep water (approximately maximum 30 centimetres deep).

Due to all these aspect, the present numbers of the Spoonbills declined, breeding areas lost and feeding areas became under high human pressure (disturbance by tourism and water pollution caused by industry and agriculture).

Nowadays in almost all European countries the Spoonbills is a “red data list” species which means that laws protect the birds and their habitats. In some countries are special “species protection plans” for the Spoonbill. Before man is able to protect a species and its habitat, the life cycle and its flyway should be known and also the breeding biology, the migration strategy and the wintering areas. Also many demographic parameters should be known like survival-rate and (natural and not-natural) mortality causes.

To carry out studies into bird populations it is necessary to have marked birds into the population and people who can do the re-sightings of the marked birds. To archive all found data and for co-ordinating the activities an administration is necessary. The results of the study should become available for scientists and politicians.

This manual is a back ground document for bird ringers who uses colour rings by Spoonbills and gives also instruction for ringing and the necessary administrative work after ringing.

Marking the birds

In the past, birds (nestlings) were ringed with metal rings only. These ringed birds could not be identified in the field if the bird was alive. Therefore only a small numbers of findings became available, mostly the data of ringing and for 0,1 – 5% of the ringed birds the date when found dead. Since the availability of modern and high quality telescopes, the possibilities for colour marking grow enormous. Birds could be marked as an individual by using high quality plastic marks with or without engraved codes. Used methods are wing tags, nose marks and colourings. Satellite tracking is an other modern method of marking birds but this is very expensive and the result is a large amount of data from a small number of birds. Aspects as survival-rate cant be studied with using satellite tracking because the duration of sending a signal is limited by its small energy source.

Some well-organized colour ringing projects have been a testimony for this method of marking birds.

Disturbance and birds welfare

Most disputable aspect by marking nestlings is setting foot into a breeding colony. It cannot be done without any disturbance. A little disturbance should be accepted. But if it is carried out seriously and ringer always keep an eye on the birds welfare, then it will not lead to any damage for the bird population. This manual gives ringers insight into the possible problems and solutions in the different circumstances. The collected data, which cant be gathered in an other way is proofed to be usable for protection the species on population level. If ringer take all precautions given here below, it will limit the change of damaging the individuals strongly.

Mixed colonies

There is much difference in habitat choice for breeding. Not all colonies are easy accessible for man because the colonies are situated in very wet marshes. In mixed colonies with other (endangered) bird species (Cormorants, Little Egret's, Bald Ibises, Night herons) disturbance of the birds can be considered as not acceptable. Every ringer or terrain manager should consider this for its own.

Breeding in trees and/or in aquatic habitats

When bird nests are established into trees or on floating vegetation it might be considered as not acceptable to enter these colonies and/or climb into the trees in order to ring the juveniles. Many juveniles could jump out of the nests and land into the water. Those juveniles are probably not in the physical condition to return to their nest on its own. It is recommended not to ring nestlings on those colonies.

Ground predators

If there are ground predators (Foxes, Rats) in the area of the colony it could be that those predators use the track of the ringers that will lead the predators to the colony. Especially when the ringers brings more then one visit to the colony, forming a path can be the result. In that case it is recommended to use each time an other route or to visit the colony only once or twice. In dry marshes or in dry periods, this can be a serious problem. If the marsh is containing wet and dry parts, ringers could choose the route over the wet parts in order to avoid that predators could follow the ringers.

Duration of access

In larges colonies and when many nestlings are available for ringing, the duration of accessing the colony could damage other breeding birds or very young nestlings. Mostly there is a large variation in the moment of breeding. Some pairs do have walking juveniles while other pairs still have eggs into their nest. To avoid that the disturbance takes too long, it is recommended that accessing the colony should never take longer than 1 hour. If weather circumstances are not excellent, the ringing period should be considerable shorter.

Weather circumstances

The outside temperature and rainfall are important for timing a ringing session. There in no doubt about rainfall, ringing should not be carried out during rainfall or in periods with lots of rain and heavy wind. The spare clears up periods during longer periods of rain and heavy wind are needed to feed the chicks. Ringing during a small clear up is not recommended. Overheating can be a serious problem for the eggs. If the outside temperature is higher than 30° Celsius (measured in the shadow) and the sun is shinning onto the eggs, it is recommended to plan the ringing session early in the morning or late in the evening when temperatures are lower. Anyway, avoid overheating of the eggs and just born chicks. During a ringing session, Spoonbills who are breeding on eggs will leave the nest and the egg will be cooling a little and this cooling is less bad than over heating.

Timing in the day

In tidal areas it is recommended to plan a ringing session during low tide. Many adult birds will be on the tidal flats to forage and the breeding birds can easily land on the tidal flats to wait. During sunset (up to approx. 10.00 h.) or sunrise (from approx. 16.00 h.), both parents will be in the neighbourhood of the nests. The present adults onto the colony are less numerous during low tide than during high tide. Normally both parents share the task of

nursing and feeding the chicks. During daytime the males are responsible for the nest and chicks and during the night the females are. In Holland, it was found that taking over this task will happen around 09.00-10.00 h. in the morning (female goes and male comes) and around 16.00-18.00 h. in the afternoon (male comes and female goes). During the take over the parents will feed the chicks several times. It is recommended to plan the ringing session not in the periods of the take over or directly after a take over. The stomach of the chicks are full with food and probably the chick will vomit during the ringing / catching. It is recommended that a ringing session is planned short before a take over, best period (in Holland) seems to be the period between 12.00 and 15.00 h. It was found that between 12.00 and 15.00 h. not many adult Spoonbills are in the colony. This might be also valid for colonies in other areas but local differences are also possible.

Reaction of the adult birds

When entering a colony slowly, the adults will stay near or on the nest for a long period. It is possible to enter the breeding birds very close (40-50 metres) without disturbing them if the birds are slowly approached. If ringer approach the nests closer, the adults feel themselves forced to leave the nest and fly away. Mostly the adults are circling above the nesting place or they land at a distance of approximately 50-100 metres of the nests where they wait with patience. The birds are not in panic at all.

Age of the chicks to ring

Spoonbill chicks have to be ringed on the upper part of its leg, on the tibia. This is done because when the bird is foraging in the water, the possibility to be able to read the rings is the best when rings are put onto the tibia. Also during sleeping or walking in grassland or any other vegetation, if ringed on the tarsus the reader will face many difficulties during the reading; the rings are not visible due to the vegetation. Therefore rings should be brought on onto the tibia.

Due to this, the bird may not be too young when ringing it because the tibia is not large enough to hold the rings. Using the rings with two inscriptions on each ring, it is necessary that the tibia must be at least 3 centimetres large.

If ringer waits too long and / or chicks are too large, the chicks are able to walk faster than the ringer and ringer can't catch the young birds. Chicks are able to walk away from the nest over large distances, more than 500 metres is normal. Therefore timing of the ringing session must be planned carefully. It is recommended that ringing take place between 12 and 30 days after hatching. Then the young birds do have a good size, the tibia is large enough and the chicks are easy to catch.

How many chicks should be ringed?

For gathering information concerning different aspects of the population dynamics it is scientifically seen necessary to have 10% or a little higher percentage ringed spoonbills into the population. Having a much higher percentage of ringed individuals in the whole population does not have an important effect on the outcome of the study. Having less than 10% marked individuals makes the outcome less reliable. It is recommended that the long term aim of the ringing would be having 10-15% colour ringed birds into the whole population. It is also recommended that the percentage of ringed birds does not fluctuate a lot over years but to keep it as constant as possible.

In the years, directly after the start of the study, the population should / could be loaded up with ringed birds by ringing more than 10-15% of the juveniles each year.

Due to the large variation in the timing of breeding it is recommended to ring both, early born juveniles and late born juveniles. It is recommended to ring with an interval of 3-5 weeks at the same colony. Incubation period is 28 days. Using this interval will avoid that an important group of the colony will be missed or that the same group of juveniles is disturbed twice and only already ringed birds are present. The sample of chicks should be chosen random.

If the colony is large and spread out over a large area, it is considerable to ring more than one time per interval period in the same colony. When ringing in the left sector, the right sector of the colony will not be disturbed. Sometimes a large colony can be separated in several sub colonies. Then the same method can be used as given for a smaller colony thus ringing in each sub colony with an interval of 3-5 weeks.

How to handle the chicks?

Catching the chicks can be done with a group of people where the group encircles the colony. The chicks should be stored for a short time in boxes or a tent. Then the chicks can be processed (ringed, taken measurements) and replace in the box or tent again. After the last bird is ringed, the group of birds can be released at once. The chicks can walk back to their nest on its own if the distance is not larger then approx. 100 metres.

In small colonies, the chicks can also ringed one by one. Then only two or three persons are needed. If a chick have been caught, it is processed and released immediately.

Which method should be chosen depends strongly on the situation in the colony and how many chicks are needed. If a group of helpers is entering a colony take care that the helpers will not spread out over the whole colony. In order to minimise the impact of entering it is recommended that they should be close together in one group after catching.

Chicks can be caught and hold in one hand getting them by both wings, close to its body.

The little bill is very sensitive and should be proceeded with caution. During ringing it is possible to put the bird on its back. If the bird is not nervous or wild, it will lay down quite and easy so that ringer can do his jobs using his both hands. After processing the bird can be released and some birds run away. However, most released birds will come close to the ringer and shelter in his neighbourhood or form a small crèche with some other released birds.

Rings and the combinations

Example: aB[HD]/R[HD]

The ringers will receive PVC-rings from Holland and they should use metal rings from their own (local) bird-ringing centre. Both, the plastic rings and the metal ring together form the colour ring combination.

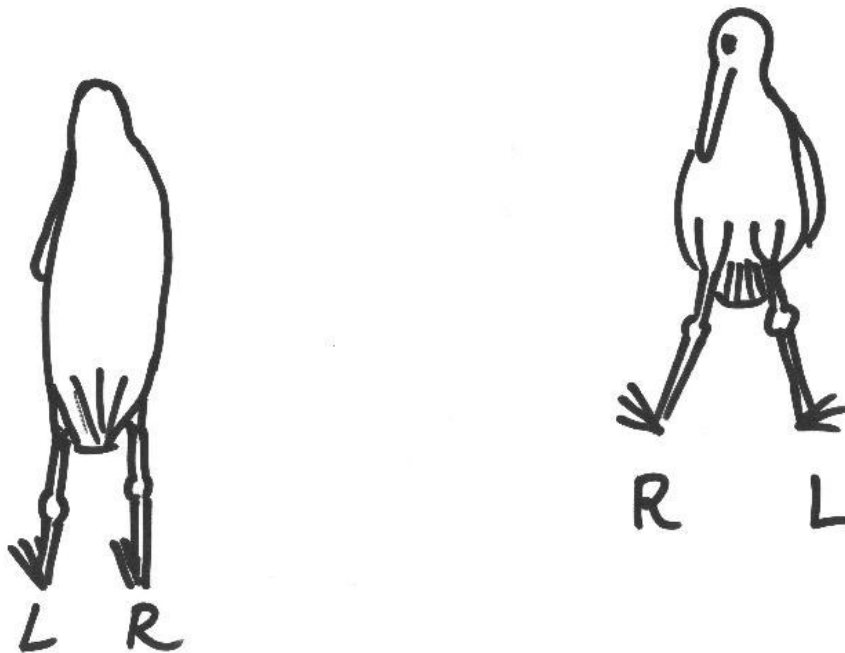
The colour ring combination is a description from all rings and their position.

The / (slash) is used as the separation between the left leg / right leg.

The lowercase 'a' (or alpha) is the metal ring from bird ringing centre.

Colours of the rings and inscriptions

Background colour	Colour of the inscription
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B=Blue or Black	White
W=White	Black
G=Green	White
R=Red	White
Y=Yellow	Black
O=Orange	Black
L=pistache or light Green.	Black



Inscriptions in descending alphabetical order

In the east Atlantic flyway, Spoonbills are ringed with colour rings where the alphabetical order is ascending. For the Adriatic flyway the rings are alphabetical descending. This is done to facilitate the coming research into the winter areas. If a bird is seen in the wintering areas, the ring reader knows directly if the bird is from east Atlantic- or the Adriatic flyway. It is supposed that there is a small overlap in the wintering areas of the birds originating to the different flyways.

Ringers attention!

Some inscriptions can be read two ways; normal and up side down position. As an example; ZS, SN or XS and others. Please be sure that the rings will be put in the right direction on the legs of the bird, the inscription **MUST BE ALPHABETICAL DESCENDING**. Rings should be read from up to down.

In order to avoid any double ringing, ringers should pay attention to this aspect.

Administration

After ringing the ringers should send the results of the ringing session to their administration or the local bird ringing centre.

The information which is needed is:

- the used color ring combination
- the metal ring number
- the place and date of ringing
- the ringers name.

This basic ringing information should be send to your (local) bird ringing centre.

If any measurements are taken, they should be send to the (local) bird ringing centre also or directly to:

Workinggroup for Spoonbills International,

Knuppeldam 4

9166 NZ Schiermonnikoog

The Netherlands

e-mail: o.overdijk@natuurmonumenten.nl

telephone ++31 519 531346

mobile phone ++31 6 54 295 236

fax ++31 31 519 531369

It is recommended that if ringers takes any measurements (biometrics) that the following measurements are recommended;

1-the size of the head and spoon (overall)

2-the size of the head only (seperation is where head feathers ends)

3-the size of the feather P8 in one of the two wings (or the longest feather if this is not the P8)

4-the weight of the bird

5-a small (1 cc) blood sample in order to define the birds sexe

If ringers have to make a choice between the taken measurement, it is recommended that number 1 and 4 are taken at least.

With these measurement (1 to 5) the condition, age and sexe of the individuals can be specified and compared. Also the food ability for the colony can be specified and differences between years can be detected.

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