

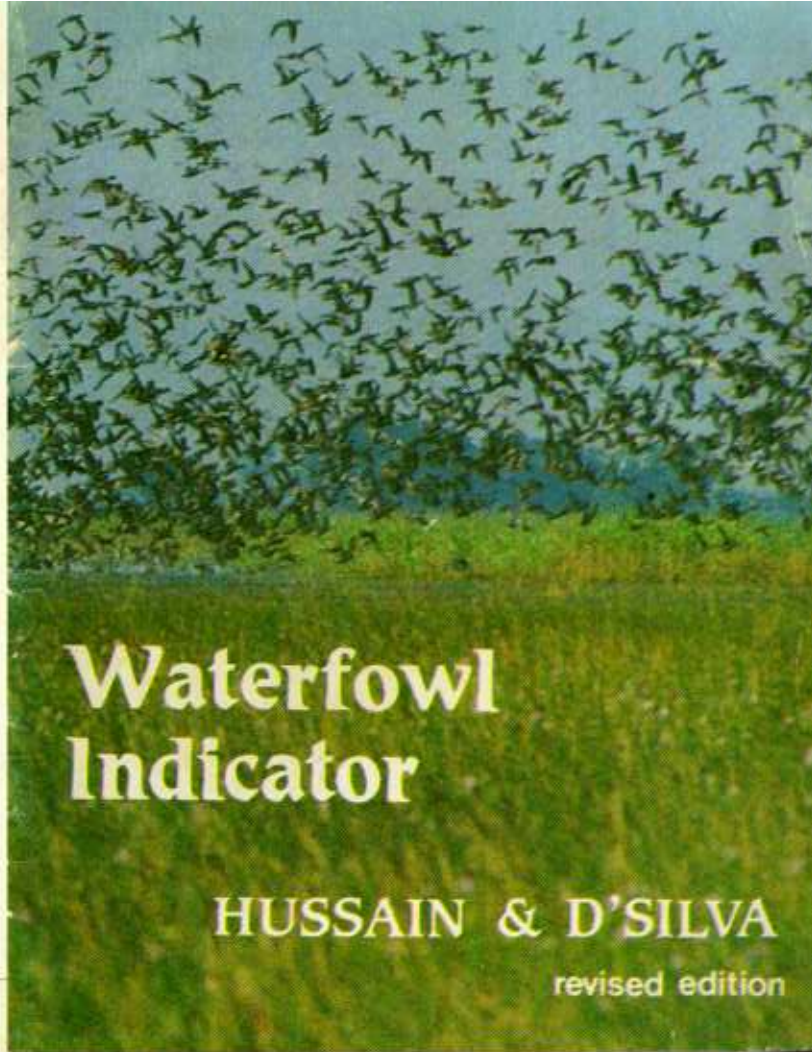
3. If the wetland is too large (e.g. Chilka Lake), you can take a boat and sail along leisurely, counting species as you go along. You can take a whole day to do so, provided there is no overlap in counting areas.

4. Always use a rough sheet of

paper to note down numbers. Enter the final figures in the given form only at the end of the day. Quite often birds other than waterfowl are also seen at wetlands. Though these are not mentioned in the count form, it would be useful to record their presence and their number.

The Bombay Natural History Society, with its collections of Natural History specimens and a library of rare and valuable books and references, is India's foremost organisation in the field of Conservation. Its 100 year old Journal, published in three issues during a calendar year to form a volume is an indispensable work of reference. Its quarterly, Hornbill, popularizes Natural History and allied subjects among the lay public.

Printed at St. Francis I.T.I., Borivli (W), Bombay-400 103



Introduction

This booklet was first published in January 1987. Primarily it provided a ready reference in the field for the Asian midwinter waterfowl count initiated by the International Waterfowl Research Bureau and sponsored by the Bombay Natural History Society. Only those species which resemble one another or those that have plumage variations which often present difficulties in field identification were included. Common and distinctive species were not shown and they would not pose any problem even to a rank beginner.

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Illustrations & Layout: Carl D'Silva.
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The printing of the first edition was possible due to a generous grant received from the International Waterfowl Research Bureau.

A revised edition is now brought out. It contains a total of 78 species, 28 more than in the previous edition. The present edition, enhances the earlier edition. Unless otherwise mentioned, the illustrations are of adult birds. Abbreviations used indicate: br - breeding; win - wintering ad - adult; juv - juvenile; imm - immature; M - migrant; R - resident.

Some useful hints for conducting waterfowl counts are given in the following page. It is hoped to update the booklet as we go along.

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First Print: January 1987
Revised Print: December 1987

Hints for Waterfowl Census:

There are various methods for censusing wildlife depending on: (a) habitat; (b) types of animals and (c) type of data required. Some of these techniques are good under certain circumstances, but in some cases one encounters difficulties while applying the techniques in the field or when one sits down to analyse the data collected. There is no perfect technique for census, and one cannot make absolute counts when one is looking at large populations of mixed species. At best one can attempt to estimate numbers of individual species in a given area. Such counts, carried out consistently adapting the same methods, help us to monitor the trend of population fluctuations in a given habitat over the seasons. The census figures, when compiled over the years, give us a fair idea of the overall population trends. This enables us to understand and appreciate the problems, if any, faced by the migratory waterfowl, especially in smaller wetlands.

Actual counts should be made leisurely counting such species but quick enough to avoid repetition. Take a most suitable vantage point or several points as the geographical feature permits, and spend as much time as you think necessary to make a reasonably accurate count.

1. If it is a small wetland such as an irrigation tank, village jheel, or a stretch of an estuary, take a vantage point from where you can see the entire wetland fairly easily. Divide the wetland into imaginary sections and count all the birds fairly rapidly in each section. Make a rough total count and note it down. Next, try to identify each species as far as possible and count individual species which you can definitely identify. Those you cannot identify, you simply make a count (e.g. 1450 duck spp). Take as much time as you want for the counts from the vantage points.

Later on you can move to a different point if it helps to get a closer view to identify the species. Depending on the size of the wetland and the distance covered, you can make counts on one or more wetlands in a day.

2. If the wetland is too large to cover from one point, you can either work in a team or if single take up different vantage points to cover the entire area. If there is a team you can divide the area among the participants and carry the counts at different points on the wetland, simultaneously making sure not to overlap each counting territory.

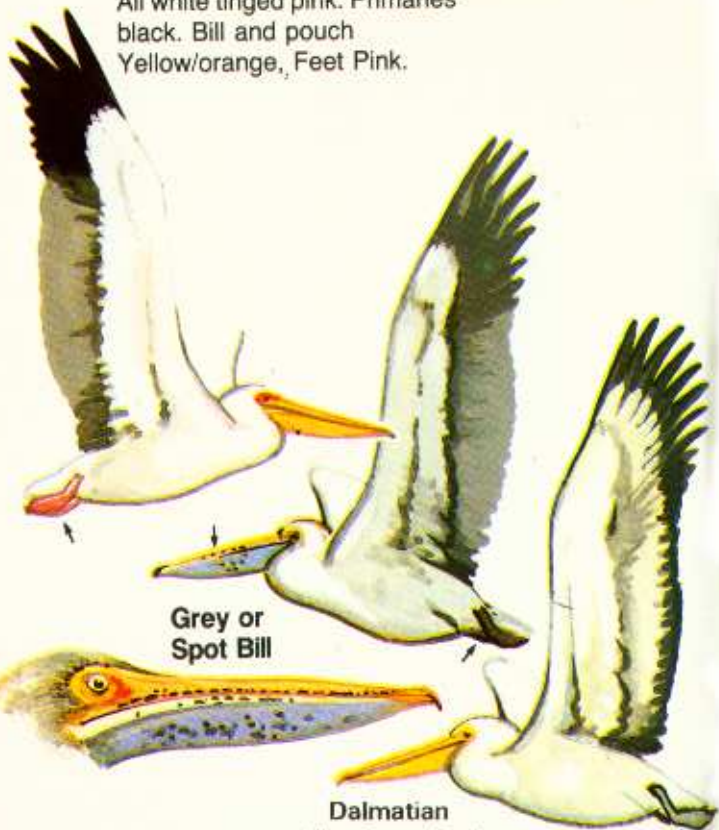
(continued on the back cover)

Pelicans

Size: Vulture +

White or Rosy

All white tinged pink. Primaries black. Bill and pouch Yellow/orange, Feet Pink.



Grey or Spot Bill

Dalmatian
Like Rosy. Feet grey

Cormorants

Large

Size: Duck +

Black with white flanks
Yellow gular skin (juv)



Indian Shag

Size: Duck +

All black. Yellow gular skin



Little

Size: Crow +

All black. Blue gular skin



Egrets



Large M R
Yellow bill. Gape

Median Smaller
M R

Little R
Black bill,
yellow shoes

Reef Heron M R
Dark grey, white chin
—note: white phase indistinguishable
from Little Egret, except
by solitary habit on coast

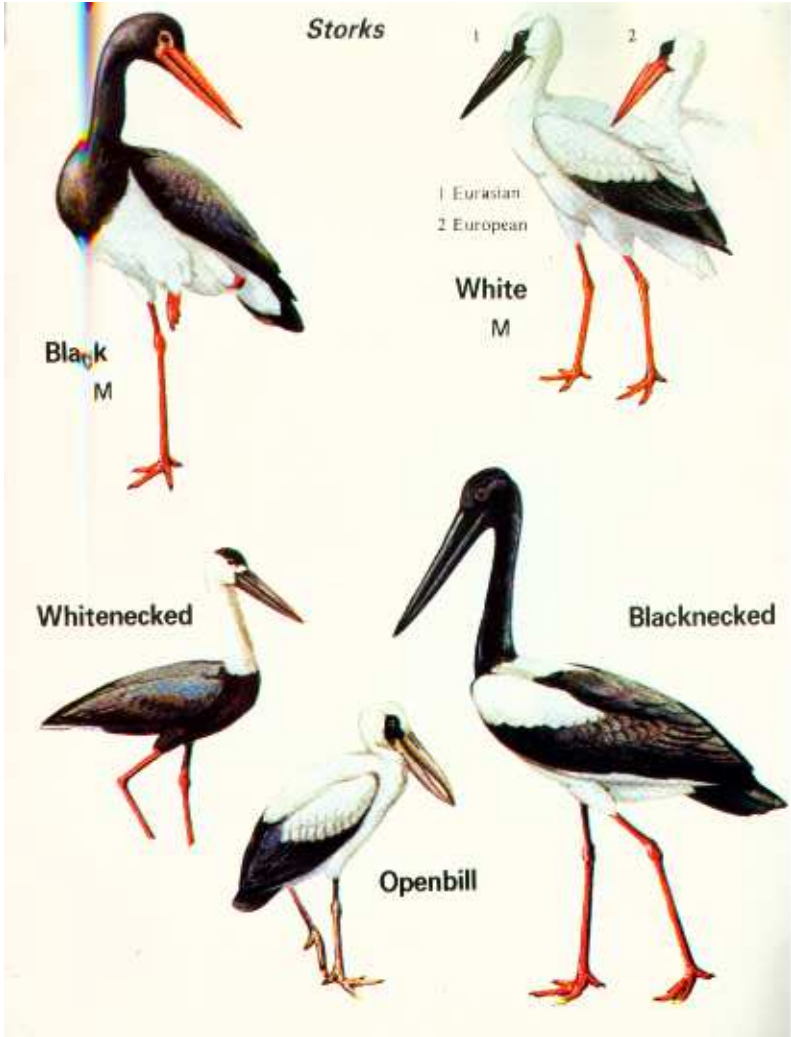


Grey Heron
M R

Purple Heron
M R

Common Crane
M

Demoiselle Crane
M



Flamingo

Size: Vulture +

Larger.
Legs and feet pink.

Lesser Flamingo

Size: Duck +

Smaller. Overall dark pink. Bill dark with crimson feathers lining base. Legs and feet red.



Geese

Whitefronted

Size: Duck +

White patch on forehead.



Lesser Whitefronted

Size: Duck ±

Greylag *Size: Duck +*

Whistling Teals

Large

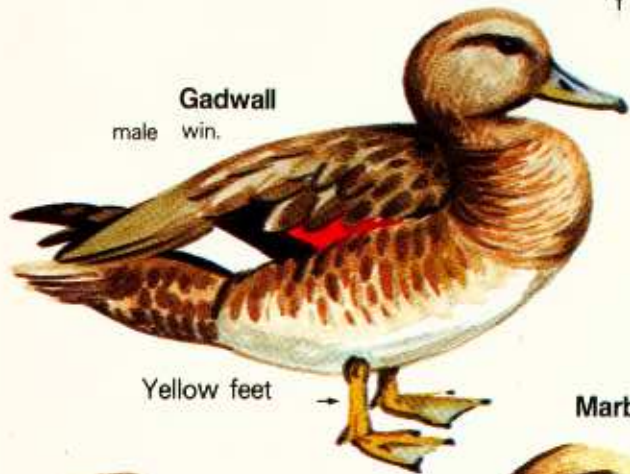
Size: Duck -
Pale creamy rump.

Lesser *Size: Duck -*
Overall pale brown. Rump chestnut



Dabbling Ducks

Dabbling ducks feed on the surface or up-end in the shallows. They take off with a vertical spring.



Gadwall
male win.

Yellow feet →



Male br.



Marbled Teal

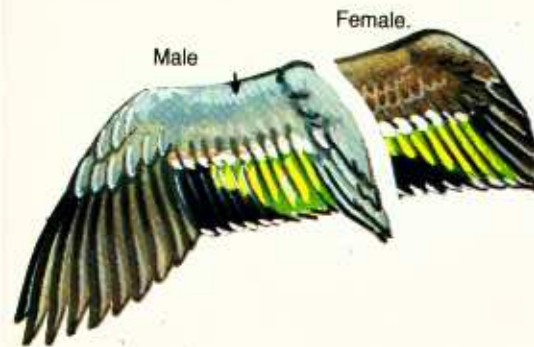


Pintail

Male br.



Female.



Male

Female.

Common Teal



Male br.

Mallard



Male br.



Male win
Blue-green bill



Female.



Male br.



Male win
Female.



Blue winged teal



Male br.



Male win.
Female.



Wigeon



Spotbilled duck

Immature without red spots



Comb duck

Female without knob



Diving Ducks

Diving ducks feed deeper. They take off with a long run on the surface aided by paddling and flapping.



White Eyed Pochard

female



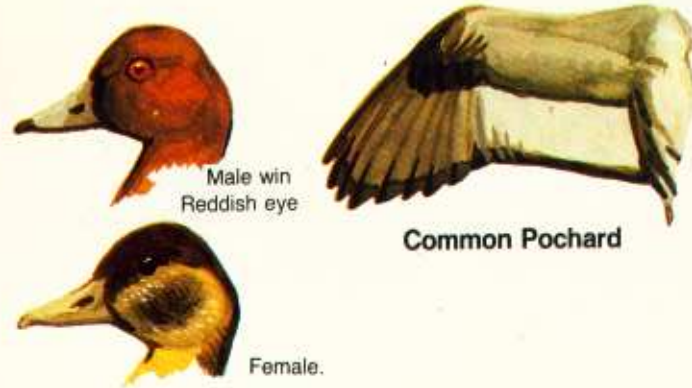
male
win.



Tufted duck



Scaup duck



Golden Plover

Size: Quail ±

Overall mottled golden



Grey Plover

Size: Partridge ±

Overall mottled grey



Lesser Sand

Size: Quail ±

Smaller. Fulvous forehead.



Large Sand

Size: Partridge -

White forehead. Brown eye band.



Little ringed

Size: Quail ±

Black & white double collar. Yellow bill, eye ring & legs.



Kentish Plover

Size: Quail ±

White collar. Black bill.

Whimbrel

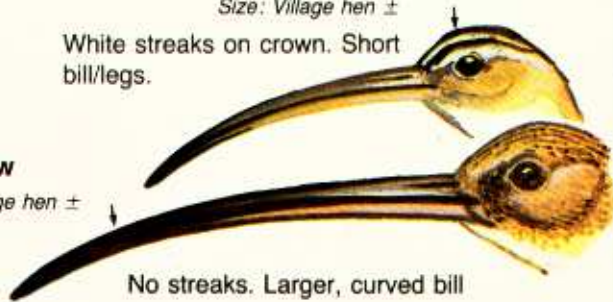
Size: Village hen ±

White streaks on crown. Short bill/legs.

Curlew

Size: Village hen ±

No streaks. Larger, curved bill



Blacktailed Godwit

Size: Village hen ±

Tail tip black. White wing bar



Bartailed Godwit

Size: Village hen ±

Tail barred. No wing bar



Dowitcher

Size: Partridge ±

Swollen bill tip



Spotted Redshank

Size: Partridge ±

No wing bar



Common Redshank

Size: Partridge -

Wing bar



Dunlin

Size: Quail-
Black rump



Curlew Sandpiper

Size: Quail-
White rump. Bill more curved



Broadbilled Sandpiper

White supercilium. Thicker bill



Little Stint

Size: Quail.

Mottled brown above. White below.



Temminck's Stint

Size: Quail.

Mottled grey above.

Legs greenish



Lapwings

Redwattled R
Size: Partridge +



Greyheaded M
Size: Partridge +



Yellowwattled R
Size: Partridge -



Large Gulls

Herring M
Size: Duck



Red bill spot,
Pink legged - pink legs



Yellow legged - yellow legs



Lesser Blackbacked
Size: Duck M
Head streaked brown,
legs orange, dark back



Greater Blackheaded
Size: Duck + M

Large. Light grey back
legs greenish yellow

Small Gulls

Brownheaded M R
Size: Crow +
White spot on black wing tips



Blackheaded M
Size: Crow
Brown patch behind eye



