

A. KANELIS - G. MÜLLER - F. WEICK

# WATERFOWL AND WADERS OF GREECE



*HELLENIC SOCIETY FOR THE PROTECTION OF NATURE*  
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*In all parts of the world the conservation of environment constitutes a duty not only for the public services but also for every single citizen.*

*It is well known that the government is conscious of this obligation and attempts to rectify the damage of the past by a series of measures which should also prevent future damage to environment. These endeavours, chiefly in the form of man-made structures, are not confined to built-up zones but are also in the field to preserve the flora and fauna.*

*A precondition for the successful protection of the flora and fauna necessitates an exact knowledge of these and their biotopes.*

*Therefore I sincerely welcome the publication of this small volume on birds, in that, for the first time, it is attempted to advance our knowledge to a wider public.*

*The authors have chosen waders and waterfowl as the subject of this booklet not by chance, but because, although they are numerous on the wetlands of Northern Greece, some of these are threatened with extinction.*

*If we wish to keep constant the number of birds breeding in and visiting or passing through Greece and thus prevent their extinction, it is necessary to protect their biotopes and avoid every form of change to which these may be subject.*

*I congratulate the Hellenic Society for the Protection of Nature on their publication of this booklet and I hope it finds its place on the bookshelves of the greatest possible number of schoolboys, teachers, foresters, other scientists and hunters.*



*N. Martis*

*Minister of Northern Greece.*

## PREFACE

*Among all animals, birds have always attracted our admiration and love. The variety of their shape and colour, their sounds and warbling, as well as the ease in their flight from bough to bough or in hovering and gliding through the air high up in the sky, have always fascinated us. They have been praised by poets and the people; they have become symbols of freedom, peace and strength but they have also been hunted by man as no other animal has.*

*With the progress of time some of them that we previously used to encounter in the yard of our house or come across in the outskirts of our town have withdrawn to remote places. Some of them have become rare and some have disappeared completely from our country. In many cases this is owing to the ignorance of the public. In fact, how could one love and protect something that one is not aware of? Furthermore, how could one learn something without having a teacher, a guide, a guidebook or manual for it? It is exactly such a manual that we aspire to give by writing this booklet to all those who are interested in "getting acquainted" with the birds and learning their names.*

*Not all birds that we come across in Greece are included in it but only the waterfowl and those that live near the water. And still not all of those either; only those that breed in our country or those that often drop in on us in great flocks to spend the winter, the summer or in order to rest.*

*The birds that are described on each page are represented on the opposite plate. The birds of each plate have been drawn to the same scale so that one can form an idea of their relative size. In certain species, e.g. ducks, the male one (♂) does not resemble the female (♀) and during mating time it differs even more so. That is why we describe the distinctive marks by which we can identify them by differentiating those of the male (first during the time of mating*

and then for the rest of the time) and setting apart those of the female from those of the young ones. We also mention the size (starting from the tip of the bill up to the end of the tail). We also mention the life span for some of them. We frequently relate a bird to other well-known birds, such as the pigeon or the sparrow, in order to give a more true to life picture of its size.

A series of numbers that we cite at the end of every description indicate those months during which the bird in question dwells in Greece and those that are within brackets indicate the months of breeding. The indicator  $_1$  signifies the first fortnight of the corresponding month, whereas indicator  $_2$  signifies the second one. Thus, the numbers 3 - 5 (6 - 7) 8 - 10 signify that the bird in question is found in Greece from the beginning of March up to the end of October and that it breeds in June and July. Similarly the numbers  $4_2$  -  $5_1$  ( $5_2$  - 6) 7 - 9 signify that the bird in question is found in Greece from the second half of April to the end of September and that it breeds in Greece from the second half of May to the end of June. When there is no number within the brackets, that means that the bird we deal with does not breed in Greece and that it either comes around to us in winter from farther north e.g. 1 - 4, 9 - 12 or that it is a bird of passage, e.g. 3 - 4, 8 - 9. Many fledgelings come to us as winter visitors as well. It is, of course, taken for granted that the dates we give as well the value for the size of the body of each bird are the average ones. A bird might well come, leave or breed a little earlier or a little later than the dates mentioned. It could also be a little smaller or bigger than the size recorded here.

The birds that are described in this issue live on lakes, the sea, rivers, estuaries and their banks or very close to them, where there exist aquatic plants, reed-beds, riverine woods and a "cornucopia" of flora. Some of them feed exclusively on insects, fish, plants or seeds. Most of them, however, in addition to all the above, eat shell-fish (Mollusk), cray-fish, worms, grubs, polliwogs, leeches, aquatic plants and even lizards, snakes, eggs of birds and tiny birds or small mammals. Quite a few of the birds that breed in our country, as well as birds of passage, winter in Africa down to its southern extremity.

*The shape of a bird together with the terminology of the various parts of its body, which we cite further on, will be of assistance to those who have forgotten what they learned at school or did not pay adequate attention to all of these things. Naturally we have confined ourselves within the limits of the most typical features which are sufficient for their identification and we have left out many of the characteristics which are of further interest only to those who specialize in birds, that is the ornithologists. Those who would like to have more information will be able to find it in PETERSON, MOUNTFORT and HOLLOW'S book "The Birds of Europe", which will soon be published in a Greek translation as well. We have avoided describing their voices, which, concerning certain birds is the sole characteristic for their identification in the open country. The experience of other people has taught us that even the best description cannot render these as it should do. We even avoided talking about the great problems of migration, behaviour, evolution etc. We have at least followed their systematic classification faithfully. Our aim is not to present an "Ornithology" but to give a ready at hand manual, starting with the waterfowl and the waders. This book, together with a pair of binoculars, a little patience and a great love, could be of assistance to those who want to identify some of these birds that are found in our country.*

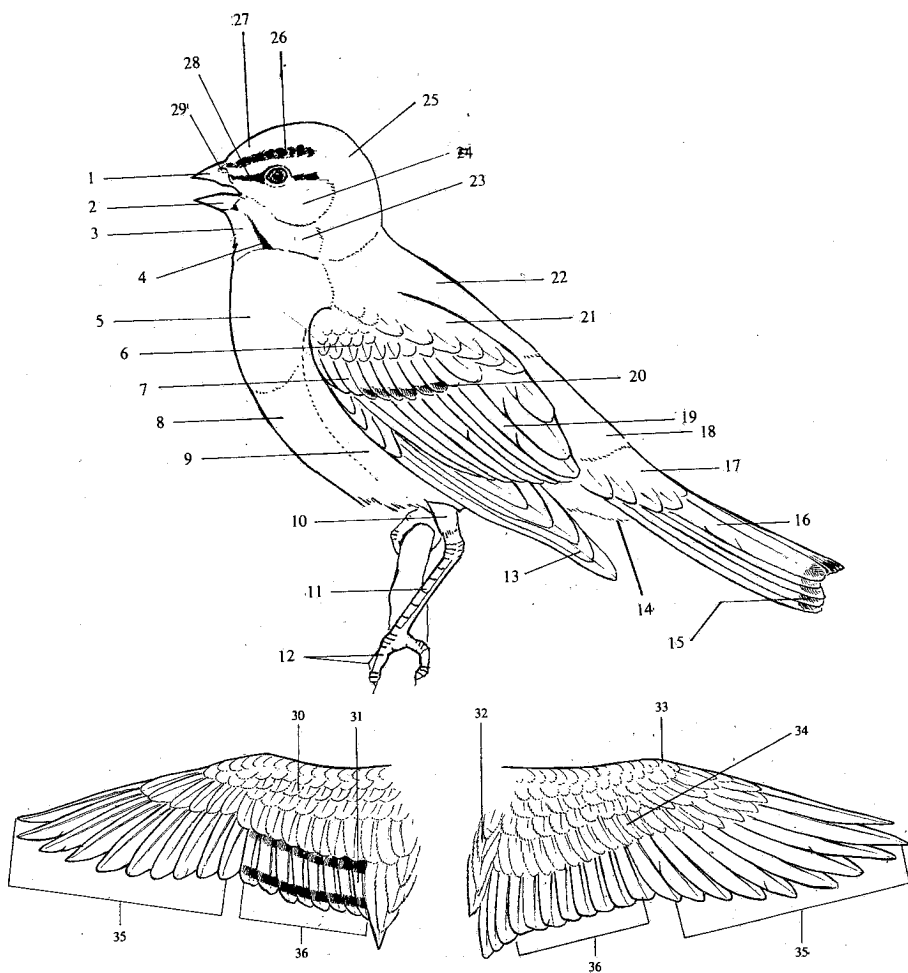
*We went to all this trouble because we believe that when we get better acquainted with our feathered world that renders beauty to our coasts, lakes, plains, mountains and fields, we shall get to love it. And when we get to love it we shall surely then be able to assist the government in its undertaking to keep intact certain wetlands, such as those of Prespa, Evros and Arta. By their proclamation as National Parks there is hope for the preservation of some species that are in danger of extinction in a few years and thus of being lost from the earth for ever. This, however, is not enough. We must soon also take those measures that our civilization and history, as well as the obligation that we have towards the coming generations and even towards our own interest, impose upon us for their preservation. The species that are in danger of extinction and which it is necessary to protect are marked with an asterisk.*

*Binoculars are indispensable, at the beginning at least, for the easier identification of most of the birds, for bird watching is not always easy. A lot of them fly at such heights, so far away or so swiftly that they are not seen well. Others, furthermore, live hidden within the foliage of trees and bushes and one can hear their voices only. Other birds come out from their hiding places at dusk or at night only.*

*Relating a bird that you see to the pictures of this booklet, try to identify it, that is, find out what its name is. And when you manage to do so, make certain that you were not wrong by reading its description. We are positive that you will soon start getting excited and that you will discover a new source of joy in this avocation. And if you ever see a bird having a ring round its leg, try and read what is written on it through your binoculars and do not omit writing down what you have read. In case you find such a bird dead, send the ring to the Ministry of Agriculture or to the Hellenic Society for the Protection of Nature, 69, Anagnostopoulou, Athens (135), making an indispensable note as to where and when you found it. With that note or the ring that you will send, you, too, will be assisting in a great experiment that is being performed and whose aim is the finding out of the movements of birds from one place to another.*

*We gratefully acknowledge the help given us by Messrs. PERICLES KOLLAS, A. MICHAÏLIDIS and M. HODGE in translating the text.*

*F. WEICK - G. MÜLLER - A. KANELIS*



1 upper mandible, 2 lower mandible, 3 chin, 4 moustachial stripe, 5 breast  
 6 lesser wing-coverts, 7 greater wing-coverts, 8 belly, 9 flanks, 10 leg,  
 11 foot, 12 toes, 13 primaries, 14 under tail-coverts, 15 terminal tail-bar,  
 16 tail-feathers, 17 upper tail-coverts, 18 rump, 19 secondaries, 20 wing-  
 bar, 21 shoulder, 22 back, 23 side of neck, 24 ear-coverts (cheek), 25 nape  
 (Occiput), 26 supercilium (eye-brow), 27 forehead, 28 eye-stripe, 29 nostril,  
 30 lesser wing-coverts, 31 speculum, 32 scapulars, 33 bend of wing, 34  
 greater wing-coverts, 35 primaries, 36 secondaries.



## 1. White Pelican\*

*Pelecanus onocrotalus*

One of the largest waterfowl of Europe. White plumage with light pink shade during breeding season. In flight, black primary and secondary feathers appear characteristically on the under-parts. Yellow throat pouch. Flesh-coloured feet. Juveniles brownish. Feeds on fish exclusively. Breeds in colonies. During migration is found in coastal areas. Lives up to 40 years. Very rare in Europe. Breeds only in Greece (lake of Mikri Prespa), Albania and the Danube delta. Migratory. 160 cm. 1 - 4 (5 - 6) 7 - 10.

## 2. Dalmatian Pelican\*

*Pelecanus crispus*

Resembles much the White Pelican, but has orange-coloured throat-pouch and grey feet. In flight wings show no black under-parts.

## 3. Cormorant\*

*Phalacrocorax carbo*

Largest black bird in Europe, with head and white neck. During breeding period a white spot appears on each thigh. Juvenile brownish, with light-coloured belly. Feeds exclusively on fish, which it catches by diving in the water. Breeds in colonies, on trees, near rivers and lakes. Lives more than 20 years. 90 cm. 1 - 3<sub>1</sub> (3<sub>2</sub> - 5) 6 - 12.

## 4. Pygmy Cormorant\*

*Phalacrocorax pygmaeus*

A smaller relative of the preceding. In summer, head reddish-brown; plumage black with white spots. Juveniles have brown plumage, white throat and belly. Feeds mainly on fish but also on water-rats and leeches. Breeds in colonies, among reeds or on low trees, with herons. 40 cm. 1 - 4 (5 - 6) 7 - 12.

## 5. Great Crested Grebe

*Podiceps cristatus*

Size of a Mallard, with long white neck. Breeding plumage has characteristic chestnut-black collar round the neck and black tufts on the ears. Lives in stagnant waters where it builds a floating nest. Feeds on fish, larvae of insects, crabs, etc. In winter is also found on coasts. 48 cm. 1 - 4 (5 - 7) 8 - 12.



## 1. Grey Heron

*Ardea cinerea*

The size of a stork, with long brown legs, long neck, oblong head grey on top. Black primaries. Characteristic black eye-stripe and tuft on neck. In flight, neck is curved in S-shape and legs stretched backwards. Juvenile plumage is darker. Breeds singly or in small groups. Lives more than 20 years. 91 cm. 1 - 2 (3 - 5) 6 - 12.

## 2. Purple Heron

*Ardea purpurea*

Smaller than preceding and more brownish. Its characteristically thin, long neck is chestnut with black stripes all along, dark grey upper-parts with long brown ornamental feathers hanging downwards during breeding period. Very long toes. In flight its form is similar to Grey Heron's. Breeds in colonies in the reeds and in shrubs among the willows. 80 cm. 3<sub>2</sub> - 4 (5 - 6) 7 - 9.

## 3. Night Heron\*

*Nycticorax nycticorax*

Smaller than the Grey Heron; short, stout and with rather short legs. The crown of the head and the back are black; the wings grey. Very characteristic are the ruby-red eyes, the black beak and the white ornamental feathers on the nape. Juveniles are brownish, with white spots in upper side of body and wings. In flight is similar to Grey Heron. Breeds in colonies, often together with other herons, on low trees or among reeds. 61 cm. 3<sub>2</sub> - 4 (5 - 6) 7 - 10.

## 4. Glossy Ibis\*

*Plegadis falcinellus*

A bird of the marshes, dark brownish, with copper-green flashes. Characteristic long beak, bent downwards. Neck stretched in flight. Breeds in colonies. Lives longer than 20 years. 56 cm. 3<sub>2</sub> - 4 (5 - 6) 7 - 9.

## 5. Spoonbill\*

*Platalea leucorodia*

All white, with long black beak, flattened (spoonlike) at the end. In flight its straight outstretched neck is characteristic, while its feet stretched backwards protrude beyond its tail. Breeds in colonies. 86 cm. 2 - 4 (5 - 6) 7 - 9.

## 6. Little Bittern

*Ixobrychus minutus*

The smallest heron, the size of a pigeon. Upper-parts deep black in the ♂, brown in the ♀. In flight there appears a characteristic light-coloured patch on the shoulders. Juveniles present numerous stripes in under-parts. Flies with retracted neck. Lives more than 6 years. 36 cm. 4 - 5<sub>1</sub> (5<sub>2</sub> - 6) 7 - 9.



## 1. Great White Egret\*

*Egretta alba*

As large as the Grey Heron. Snow-white plumage with black legs and toes. During breeding season the base of its black beak becomes yellow (in winter almost the whole beak is yellow). Downwards hanging ornamental feathers on its back. In flight, neck is curved in S-shape, legs stretched backwards. Breeds in colonies, often with other herons. In winter is often found near the coasts. 90 cm. 1 - 4 (5 - 6) 7 - 12.

## 2. Little Egret\*

*Egretta garzetta*

A little white heron with black beak, black legs and yellow feet. Its nuptial plumage has long feathers on nape and ornamental feathers on back. In flight resembles the Great White Egret. Breeds in colonies together with other species of herons, nesting in willows or tamarisks, and occasionally in reeds. 46 cm. 3 - 4 (5 - 6) 7 - 9.

## 3. Squacco Heron\*

*Ardeola ralloides*

A little larger than the Little Bittern. Has pale ochre-yellow plumage, white wings and very small hanging crest. During breeding season beak becomes black and blue, and green the rest of the year. Legs are reddish during breeding and greenish the rest of the time. In flight looks almost white, like the Little Egret. 46 cm. 4 (5 - 6) 7 - 9.

## 4. White Stork

*Ciconia ciconia*

Easily identified by its large size, white plumage, jet-black primaries and secondaries, the long, bright-red bill and red legs. Juveniles have dark bill and legs. Nests on buildings, telegraph poles and trees, away from woods. Lives longer than 20 years. 102 cm. 3 (4 - 5) 6 - 9.

## 5. Black Stork\*

*Ciconia nigra*

Resembles the White Stork, but is distinguished from it by bright dark-brown neck and upper-part of body. Juveniles are dull dark brown. Found in woods. Nests in trees and rocks. Lives up to 30 years. Rare breeder in Greece. 97 cm. 3<sub>2</sub> - 4 (5 - 6) 7 - 9.



## 1. Crane

*Grus grus*

Long-legged and long-necked, with slate-grey plumage; larger than Stork. Its elongated inner secondaries hang sickle-like over its tail. Crown red, head and neck black with stripe along sides of latter. Lives up to 40 years. Does not breed any more in Greece, where it is only a migrant. 115 cm. 3 - 4, 9 - 10.

## 2. Mute Swan

*Cygnus olor*

Largest of Anatidae, as big as the Pelican. Adults are snow-white, with orange-red bill, whose base is black with a characteristic knob. Legs grey-black. Juveniles are grey-brown with lead-grey bill. Its stout neck takes an S-curve when swimming. Flies with outstretched neck, with strong wing-beat producing a metallic rustle. 150 cm. 1 - 4<sub>1</sub> (4<sub>2</sub> - 6<sub>1</sub>) 6<sub>2</sub> - 12.

## 3. Red-breasted Goose

*Branta ruficollis*

The smallest of the Anserinae. Is recognizable by its strikingly contrasting design and colours of its plumage. Even from a distance we can distinguish its characteristic, wide white band on its sides. Between its very small beak and the eye, there is a round white patch. A rare winter visitor in Thrace (Evros). 55 cm. 1 - 2, 12.

## 4. Greylag Goose\*

*Anser anser*

Largest European goose, from which the domestic goose is descended, Light-brown-grey plumage. Head and neck are not darker than rest of body as is the case with other grey geese. Strong orange-coloured bill. Legs flesh-coloured. In flight, the front edge of wings is characteristically light-coloured. Lives up to 25 years. 80 cm. 1 - 3 (4 - 5) 6 - 12.

## 5. White-fronted Goose

*Anser albifrons*

Smaller than Greylag Goose. Easily identified by white patch on forehead and irregular black patches on belly. Legs orange-coloured. Juveniles without patches on forehead and belly. Lives up to 47 years. Winter visitor. 70 cm. 1 - 2, 12.





## 1. Ruddy Shelduck\*

*Tadorna ferruginea*

Identified by goose-like appearance, uniform light-brown plumage, light-coloured head and neck, and black wing and tail tips. Black bill and legs. In flight the white shoulder feathers on wings and green speculum are characteristic. The ♂ has a narrow black neckband; the ♀ has an almost white head. Rare breeder in Greece. 64 cm. 1 - 4<sub>1</sub> (4<sub>2</sub> - 6<sub>1</sub>) 6<sub>2</sub> - 12.

## 2. Shelduck\*

*Tadorna tadorna*

Almost as large as the Ruddy Shelduck, but distinguished by its characteristic black-and-white and ruddy-brown colours. The ♂ has a brilliant red bill with typical red knob. Red legs. Juveniles, grey-brown and white. Lives exclusively on sea-coast. Breeds inside rabbit-holes and rock crevices. 60 cm. 1 - 4<sub>1</sub> (4<sub>2</sub> - 6<sub>1</sub>) 6<sub>2</sub> - 12.

## 3. Mallard

*Anas platyrhynchos*

Largest of surface-feeding ducks. Drake has gorgeous plumage, dark-green head and neck, white neckband, dark chestnut breast and yellow-green bill. When moulting, resembles ♀ which has grey-brown spots all over her body. In flight, the blue speculum is visible in both sexes. Common breeder. Lives up to 20 years. 58 cm. 1 - 3 (4 - 5) 6 - 12.

## 4. Gadwall\*

*Anas strepera*

This surface-feeding duck is slightly smaller and with more abrupt forehead than the Mallard. The ♂ plumage is preponderantly dark-grey with black under tail-coverts. The ♀ resembles the Mallard ♀, but has a yellow band around the sides of her bill. In flight, its white speculum is characteristic. Lives up to about 10 years. 51 cm. 1 - 4<sub>1</sub> (4<sub>2</sub> - 6<sub>1</sub>) 6<sub>2</sub> - 12.

## 5. Ferruginous Duck\*

*Aythya nyroca*

A small diving-duck with distinctive white under tail-coverts. Head, neck and breast, mahogany. The ♂ has white eyes. In flight, a white band is visible on wings trailing edge. 41 cm. 1 - 4 (5 - 6) 7 - 12.



## 1. Garganey\*

*Anas querquedula*

A small surface-feeding duck, slightly larger than the Teal. The ♂ nuptial plumage is brown at the head, neck and breast. A distinctive feature is a white band above the eyes. The ♀ has brown spots over her body. In flight, shows distinctive light-grey leading edge of wings, as well as white-bordered green speculum. Lives 8 years. 38 cm. 3 - 4 (5 - 6) 7 - 10.

## 2. Wigeon

*Anas penelope*

Male's nuptial plumage has bright reddish-brown head, with light-yellow patch on forehead. Back and sides light grey; under tail-coverts black. ♀ dark greyish-brown. Speculum dark green in both sexes. Is a frequent winter visitor. 46 cm. 1 - 2, 11 - 12.

## 3. Teal

*Anas crecca*

Smallest surface-feeding duck. ♂ has dark-brown head, green band along sides of head, long white band along shoulders and yellow under tail-coverts. Winter plumage of ♂ and juveniles has brown spots. In flight, the green speculum is a distinctive feature. Lives up to 14 years. Frequent winter visitor and migrant. 36 cm. 1 - 4, 9 - 12.

## 4. Shoveler\*

*Anas clypeata*

Distinguished from other ducks by long spatulate bill. ♂ nuptial plumage has dark-green head. Neck and upper breast white; sides reddish-brown; speculum black-green. The ♀ resembles that of the Mallard, but with grey-blue wing-coverts in flight. This surface feeding duck lives up to 20 years. 51 cm. 1 - 4 (5 - 6) 7 - 12.

## 5. Red-crested Pochard\*

*Netta rufina*

A thick-set, big-headed diving duck. ♂ has orange-blond head and red bill. Neck, breast and belly black; sides white with white patch on shoulders, ♀ is preponderantly light grey-brown, with white cheeks, grey-blue bill with only the tip red. Lives at least 15 years. 56 cm. 1 - 4, 7 - 12.

## 6. Pintail

*Anas acuta*

Slender, long-necked surface-feeding duck, with pointed tail. ♂ is mainly grey with brown head and tail, with characteristic white band all along its throat; black under tail-coverts. ♀ resembles that of the Mallard but has more slender body. In flight can be identified mainly by long neck, pointed tail and metallic-green speculum. Lives 14 years; in captivity, up to 20 years. Frequent winter visitor. 56 cm. 1 - 3, 10 - 12.



## 1. Tufted Duck

*Aythya fuligula*

A small diving-duck. ♂ has black head, back and breast, and white belly; has a characteristic tuft of feathers hanging backwards from back of head. ♀ preponderantly grey-brown, with small white spot at base of bill. In flight, both sexes show white band along trailing edges of wings. Lives up to 13 years and, in captivity, up to 19 years. Winter visitor. 43 cm. 1 - 3, 10 - 12.

## 2. Pochard

*Aythya ferina*

A diving duck. ♂ has reddish-brown head and neck, and black upper breast, grey back, and grey bill with black tip. ♀ is preponderantly grey-brown. In flight, both sexes have grey wing surface with lighter-coloured band on trailing edge. In captivity has lived 22 years. Frequent winter visitor. 16 cm. 1 - 4, 7 - 12.

## 3. Red-breasted Merganser

*Mergus serrator*

The size of the Mallard, with typical shaggy crest and narrow, red bill. ♀ is preponderantly grey, in contrast to bright-coloured ♂, with brown head and white throat. Regular winter visitor and migrant in coastal areas, Lives up to 10 years. 58 cm. 1 - 3, 11 - 12.

## 4. Moorhen

*Gallinula chloropus*

The size of the Partridge, with dark-brown plumage and characteristic white under tail-coverts and white band along sides. Red frontal shield and bill with yellow tip, green legs. Juveniles, grey with lighter grey throat. When swimming quickly, moves head briskly, often nervously, shaking its upturned tail. On taking off, legs hang their whole length. Lives up to 8 years. 33 cm. 1 - 4 (5 - 6) 7 - 12.

## 5. Coot

*Fulica atra*

A black-grey swimming bird, rarely reaching the size of the duck, with characteristic white patch on forehead and white bill. Dark legs with lobes on the toes. Juveniles dark grey-brown with light-coloured throat. Swims moving its head, and dives with a jerk. Frequent winter visitor. 38 cm. 1 - 4 (5 - 6) 7 - 12.

## 6. Water Rail

*Rallus aquaticus*

Characteristic long, red bill. Dark brown upper-part of body with black spots; sides with characteristic black-and-white stripes. Cheeks, throat, neck and breast slate-grey. Juveniles do not present such contrasts. Voice like pig's grunt with occasional laughter sounds. Can live in flocks. In winter migrates to the north. 28 cm. 1 - 4 (5 - 6) 7 - 12.



## 1. Curlew

*Numenius arquata*

Largest European wader. Grey-brown plumage with darker stripes and spots. Has characteristic long bill curved downwards. In flight presents distinctive white tail-coverts. Frequent winter visitor and migrant. 55 cm. 1 - 4, 9 - 12.

## 2. Little Ringed Plover

*Charadrius dubius*

The size of a Skylark, has white neckband and continuous black band around breast and neck; dark bill, yellowish legs and yellow eye-ring. Upper body dark. In flight, shows no white bands on wings. Juveniles have brown, discontinuous band around breast and neck. 16 cm. 4 (5 - 7) 8 - 9.

## 3. Kentish Plover

*Charadrius alexandrinus*

Resembles the Little Ringed Plover, but the dark band of upper breast is discontinued in front, and is black in the ♂ and dark-brown in the ♀. In flight, shows white band on upper side of wings. Juveniles similar to those of Little Ringed Plover, but with black legs. 16 cm. 1 - 4 (5 - 7) 8 - 12.

## 4. Oystercatcher

*Haematopus ostralegus*

A big black-and-white wader, with long, red bill and red legs. Head, breast and upper body black, while under-parts are pure white. When disturbed becomes excited and cries loudly and unceasingly. Builds trough-like nest on sandy ground, frequently in the middle of a colony of terns. Lives up to 34 years. 43 cm. 1 - 4 (5 - 6) 7 - 12.

## 5. Black-tailed Godwit

*Limosa limosa*

In nuptial plumage, head and breast are blond-brown. Sides and belly white with black spots. Bill long and almost straight. In winter plumage, upper-parts are grey-brown, while under-parts and sides are white. In flight, presents a characteristic white band on its wings, and its white tail is black at the end. A frequent migrant. 41 cm. 1 - 5, 9 - 12.

## 6. Snipe

*Gallinago gallinago*

Typical very long and straight bill. Pale yellow longitudinal stripes on dark-brown crown. The tail feathers have transverse bands. Pale-greenish legs. Characteristic zigzag flight with bill pointed downwards. Winter visitor. 27 cm. 1 - 3, 9 - 12.





## 1. Lapwing

*Vanellus vanellus*

Roughly the size of a pigeon. Mainly black-and-white plumage, back with metallic shine, and long erect crest. With its large rounded wings, during breeding season, makes a peculiar, violent sort of flight, full of tricks. Loud, continuous calls of excitement and warning. 30 cm. 1 - 3 (4 - 5) 6 - 12.

## 2. Spur-winged Plover\*

*Hoplopterus spinosus*

Resembles the Lapwing, but has a sandy plumage on its back, and wings with black tips. Head, throat, breast and nape black; sides of neck and ear-patches white. The curve of the wing ends in a black spur. Slight crest hanging. 27 cm. 4 (5 - 6) 7 - 9.

## 3. Redshank

*Tringa totanus*

A medium sized grey-brown sandpiper, with heavy streaks and orange-red legs, black bill with orange-yellow base. In flight, the white trailing edges of its wings are characteristic. 28 cm. 1 - 3 (4 - 6) 7 - 12.

## 4. Stone Curlew

*Burhinus oedicnemus*

Sand-coloured bird, the size of a pigeon, with dark longitudinal stripes, large yellow eyes and long, sturdy legs; strong yellow bill with black tip. In flight, shows two characteristic whitish bands along upper-part of wings. 40 cm. 4 - 4 ((5 - 6) 7 - 9.

## 5. Avocet\*

*Recurvirostra avosetta*

Unmistakable, with long, thin, upturned bill; black-and-white plumage, rich in contrasts, and long blue-grey legs. In flight, outstretched legs trail beyond its tail. Breeds in colonies. 45 cm. 1 - 4 (5 - 6) 7 - 12.

## 6. Black-winged Stilt\*

*Himantopus himantopus*

Unmistakable, thanks to its extremely long, thin red legs which in flight trail well beyond its tail by approx. 18 cm. Black back and wings. Thin, pointed bill. ♂ has dark crown and nape. Breeds in colonies. 38 cm. 3 - 4 (5 - 6) 7 - 9.



## 1. Pratincole

*Glareola pratincola*

Upper-part of the body olive-brown, light-yellow throat rounded with thin black band, long pointed wings. Flies like the terns, showing characteristic white tail-coverts and black deeply forked tail and dark wing tips. The lower wing linings reddish brown. Winter plumage shows darker spots on throat. Nests in colonies. 23 cm. 4 (5 - 6) 7 - 9.

## 2. Little Stint

*Calidris minuta*

A small sandpiper, the size of a Robin, with relatively short, dark legs; bill shorter than the head; whitish eye-stripe and white belly. Nuptial plumage light-brown, while winter plumage almost grey-brown. In flight, shows light-coloured bands on upper side of wings. Tail-coverts and middle of tail dark. 13 cm. 1 - 6, 9 - 12.

## 3. Turnstone

*Arenaria interpres*

In nuptial plumage, has reddish-brown back, a black V from shoulders down to middle of back, and bright black-and-white patterns on head and neck. Short, pointed bill. In flight, shows two characteristic white bands along upper side of wings. Winter plumage is grey-brown above white throat and grey-brown band on breast. Juveniles, similar to adult winter plumage. Migrant. 23 cm. 3 - 4, 8 - 9.

## 4. Greenshank

*Tringa nebularia*

In nuptial plumage has grey-brown upper-parts, neck and breast with black spots. Long, greenish and slightly upturned bill, greenish legs. In flight, rump and tail look white. Winter plumage has upper-parts lighter coloured and greyish. 30 cm. 1 - 6, 9 - 12.

## 5. Grey Plover

*Pluvialis squatarola*

In winter plumage shows light-coloured, whitish spots on upper body, while lower parts are light-coloured without black spots. In flight, seen from below, has black armpits. Upper wing side shows light-coloured band. In nuptial plumage, cheeks, throat, breast and belly black. White stripes on sides of neck. 28 cm. 1 - 6, 9 - 12.

## 6. Ruff

*Philomachus pugnax*

The ♂ is the size of a thrush, the ♀, or Reeve, much smaller. There are great variations in the colour of the feet and of the practically straight bill (orange, yellow, greenish, brown). In flight there appears a characteristic whitish band on upper-side of wings and a white oval patch on each outer side of tail. 29 cm. 3 - 5, 8 - 9.



## 1. White-tailed Eagle\*

*Haliaeetus albicilla*

The largest of Greek eagles. Has strong yellow bill; feet without feathers. Mature birds have white tail. Frequents stagnant and running waters as well as coastal areas. Feeds mainly on fish, but also on water-fowl, small mammals and carcasses. Lives 30 to 40 years. Tending to disappear as a breeding species in Greece. Winters near shorelines (e.g., at the Evros delta). Builds conspicuous nest on tall trees. 90 cm. 1 - 2<sub>1</sub> (2<sub>2</sub> - 3) 4 - 12.

## 2. Marsh Harrier

*Circus aeruginosus*

Typical bird of prey of the reed-thickets. Its flight is characteristic with its many tricks. The ♂ predominantly brown with lighter-coloured head and grey secondaries and tail. The ♀ dark brown with whitish light-brown head, throat and shoulder feathers. Frequents inland waters, river deltas and lagoons with extensive reed growth. Builds nest on ground and inside reed-thickets. Feeds mainly on small mammals and birds, but also on fish, frogs and snakes. Lives up to 16 years. Breeds in Greece. In winter migrates to Greece from north. 50 cm. 1 - 4<sub>1</sub> (4<sub>2</sub> - 5) 6 - 12.

## 3. Black Kite

*Milvus migrans*

Dark coloured bird of prey, the size of the Buzzard. In flight, easily identified by thin, forked tail. Frequents woods and tree clusters near the water. Builds nest on big trees. Feeds on small mammals, birds, fish and carcasses. Lives up to 23 years, and up to 28 in captivity. 57 cm. 3 - 4<sub>1</sub> (4<sub>2</sub> - 5) 6 - 9.

## 4. Short-eared Owl

*Asio flameus*

The size of a Crow, with light yellowish-brown plumage with rows of dark spots along wings and body, yellow eyes with black eye-ring, long wings and short tail. Active mainly in daylight. Frequents marshy land, humid fields and sandy areas. Feeds on mice and other small mammals, rarely on birds and reptiles. In winter migrates to the north. 38 cm. 1 - 3, 10 - 12.



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### 1. Mediterranean Gull\* *Larus melanocephalus*

The size of a Wood Pigeon. In nuptial plumage has black hood reaching nape, strong red-black bill and red legs, Upper body light-grey, rest of body white. In flight, trailing edge of primaries appears white. In winter plumage, almost entirely white, with only a black spot behind the eyes. During first year, juveniles have black outer primaries, black band on tail end and blackish legs and bill. Breeds in colonies. 39 cm. 1 - 4 (5 - 6) 7 - 12.

### 2. Black-headed Gull *Larus ridibundus*

Resembles the Mediterranean Gull, although in its nuptial plumage the dark-brown hood does not reach the nape. The bill, too, is thinner. The tips of the primaries are black. Breeds in colonies. Lives more than 30 years. Frequent winter visitor. 40 cm. 1 - 4, 9 - 12.

### 3. Little Gull *Larus minutus*

The smallest Gull. In its nuptial plumage it resembles the Black-headed Gull, but its head is completely black. The tips of its light-grey primaries and secondaries are white. In flight, seen from below, its darkly shaded wings with their rounded shape are characteristic. In winter plumage resembles the Black-headed Gull. Juveniles have the lower side of wings white, the tip of the tail black, and the open wings show a well-defined W, seen from below. Frequent winter visitor. 26 cm. 1 - 4, 9 - 12.

### 4. Slender-billed Gull\* *Larus genei*

Similar to the Black-headed Gull, but with white head. Rather long, thin and bright red bill, red eye-rings, tail slightly wedgelike. Juveniles similar to those of the Black-headed Gull, but with distinctly longer, slightly wedge-like tail and brownish-yellow legs. Very rare breeder 45 cm. 1 - 4, 7 - 12.

### 5. Herring Gull *Larus argentatus*

Typical gull of coastal areas. Back and wings grey, the latter with brown tips. Yellow legs, strong yellow bill with red spot. Juveniles, uniformly brown with darker primaries and tail-feathers, and blackish bill. 56 cm. 1 - 4 (5 - 6) 7 - 12.





## 1. Audouin's Gull\*

*Larus audouinii*

The size and general appearance of the Herring Gull, but generally thinner and with narrower wings, dark legs, coral-red bill with a black transverse band just before its yellow tip. Juveniles have yellow bill with black band at the tip. It is the rarest European Gull; the few remaining individuals are threatened with extinction. Very rare breeding bird in the Aegean, where there remain only about 25 pairs. 50 cm. 1 - 4 (5 - 6) 7 - 12.

## 2. Manx Shearwater

*Puffinus puffinus*

The size of the Rock Dove. Upper side, dark black-brown; under-side, white. Long, narrow wings, black bill. Flight, either with regular wing-beats or gliding close to the waves, tilting from side to side, almost touching the water surface with wingtips. Nests in colonies on the islands; frequents the open sea. 35 cm. 2 - 4<sub>1</sub> (4<sub>2</sub> - 6) 7 - 10.

## 3. Cory's Shearwater

*Procellaria diomedea*

Resembles the Manx Shearwater, but is much larger, with yellow bill and grey-brown head. Nests in colonies on the islands, in rock crevices. Frequents the open sea. 46 cm. 4<sub>2</sub> - 5<sub>1</sub> (5<sub>2</sub> - 7) 8 - 10.

## 4. Black Tern\*

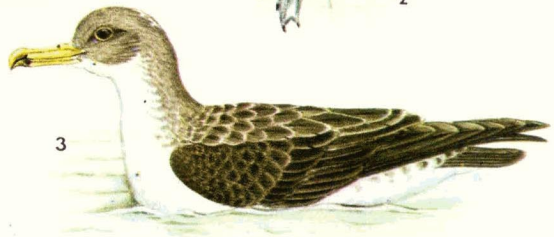
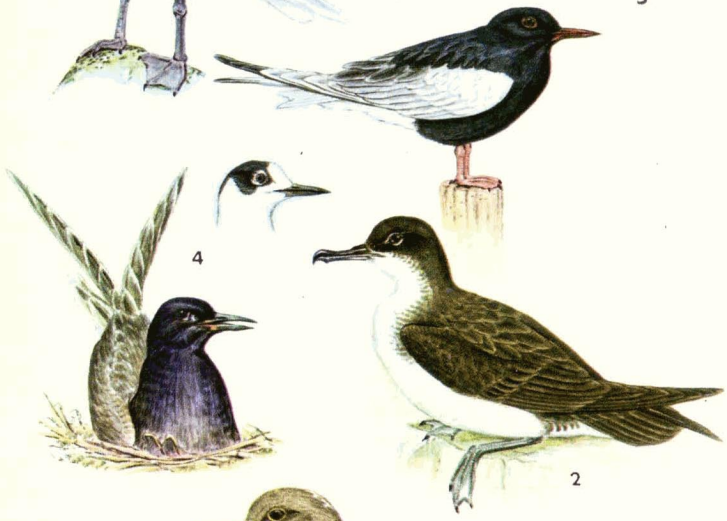
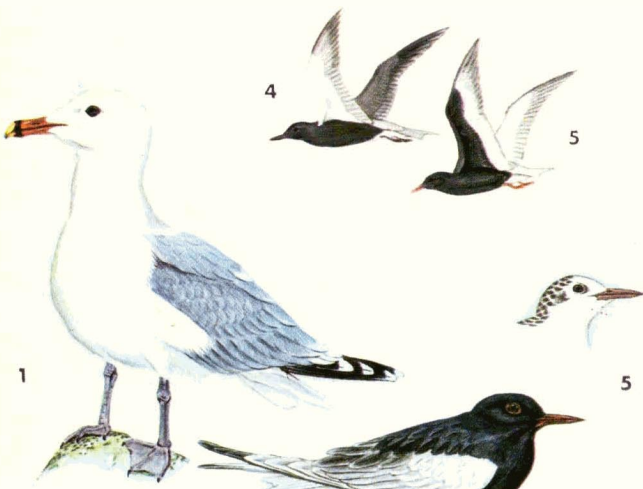
*Chlidonias niger*

In its nuptial plumage unmistakable, with its slate-grey back, slightly forked tail and upper side of wings. Head and sides of belly, black. The lower wing-coverts, white. Wings light-grey beneath. In winter plumage, is grey above and white beneath. Head with blackish hood and white forehead. Dark spot on sides of neck. Juveniles, mainly grey-brown above and whitish below. Legs always blackish. Rare breeder in Greece, but frequent migrant. 24 cm. 4<sub>2</sub> - 5<sub>1</sub> (5<sub>2</sub> - 6) 7 - 9.

## 5. White-winged Black Tern

*Chlidonias leucopterus*

Resembles closely the Black Tern, but wing-coverts and tail are white. In flight, the black lower wing-coverts are visible. Legs and bill red. In winter plumage, similar to Black Tern but upper side of wings is lighter coloured, the tail white, legs red and no spot on sides of neck. 24 cm. 4<sub>2</sub> - 5<sub>1</sub>, 7 - 9.



## 1. Whiskered Tern\*

*Chlidonias hybrida*

Resembles the Black Tern, but in nuptial plumage is distinguished by black hood, white cheeks and sides of neck, and darker under-part of body. Reddish bill and legs. Tail slightly forked. Winter plumage similar to White-winged Black Tern's. Rare breeder in Greece. 25 cm.  $4_2 - 5_1$  (5<sub>2</sub> - 6) 7 - 9.

## 2. Gull-billed Tern\*

*Gelochelidon nilotica*

A middle sized tern, with strong black bill similar to a Gull's. Legs fairly long and black, and black hood. Its nuptial plumage is light grey-blue above, white below. Winter plumage shows lighter coloured upper-parts, white crown and grey band on nape. Dark area around the eyes. Juveniles bear grey-brown spots on back and wing linings. Nests in colonies. 38 cm.  $4_2 - 5_1$  (5<sub>2</sub> - 6) 7 - 9.

## 3. Caspian Tern

*Hydroprogne tschegrava*

Almost as large as the Herring Gull, with strong red bill and fairly long black legs. In nuptial plumage has black crested crown, which in winter is lighter-coloured with dark stripes. In flight, the dark under-parts of primaries and slightly forked tail are characteristic. A migrant and occasional winter visitor. 53 cm. 1 - 12.

## 4. Common Tern

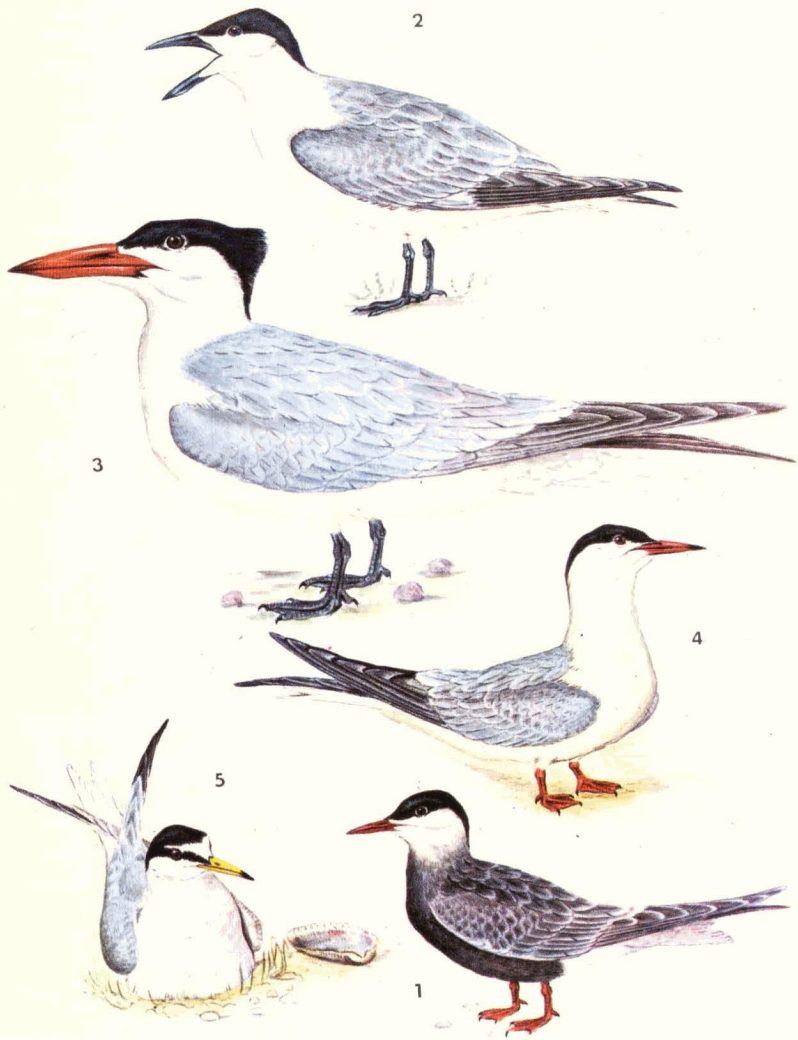
*Sterna hirundo*

A very common tern, with deeply forked tail, red legs, black patch on crown and nape, and orange-red bill with black tip. In flight, under sides of the wings have dark tips. Winter plumage similar to nuptial, but with white forehead. Juveniles have grey-brown spots on upper side. Breeds in colonies in sandy and muddy ground, often together with Little Terns. 38 cm.  $4_2 - 5_1$  (5<sub>2</sub> - 6) 7 - 9.

## 5. Little Tern

*Sterna albifrons*

A very small tern, with yellow legs and yellow black-tipped bill. In breeding season the crown and nape are black, the forehead white. Winter plumage shows dark band from eyes to nape. Juveniles similar to adults in winter plumage, but with dark bands on upper side. 23 cm.  $4_2 - 5_1$  (5<sub>2</sub> - 6) 7 - 9.



## 1. Roller

*Coracias garrulus*

The size of a Jackdaw, with reddish-brown back, rest of body mainly light blue, strong black bill and yellowish legs. In flight, wings look purple-blue with black tips. Frequents open ground with clusters of trees, ruins or rocks, as well as river-beds. Nests, among other places, in hollows on steep river-cliffs. 30 cm. 4<sub>2</sub> - 5<sub>1</sub> (5<sub>2</sub> - 6) 7 - 9.

## 2. Bee-eater

*Merops apiaster*

The European bird with the most variegated plumage. The upper-parts are reddish-brown gradually changing to golden-yellow in lower back. The blue-green under-parts are separated from yellow throat by a black band. The middle tail-feathers jut out their pointed tips. Flies like a swallow, often gliding with outstretched wings. Nests in colonies in hollows which it excavates on steep cliffs. 25 cm. 4 - 5<sub>1</sub> (5<sub>2</sub> - 6) 7 - 9.

## 3. Yellow Wagtail

*Motacilla flava*

A slim bird, with long tail, long legs and yellow upper-parts, crown and nape black, throat yellow, and back olive-green. Wings black-and-brown with yellow-brown bands. The two outer feathers of its black tail are white. ♀ has much duller upper parts, while her under-parts are lighter coloured. Occasionally other sub-species of this species are found. 17 cm. 4<sub>2</sub> - 5<sub>1</sub> (5<sub>2</sub> - 6) 7 - 9.

## 4. Bearded Tit

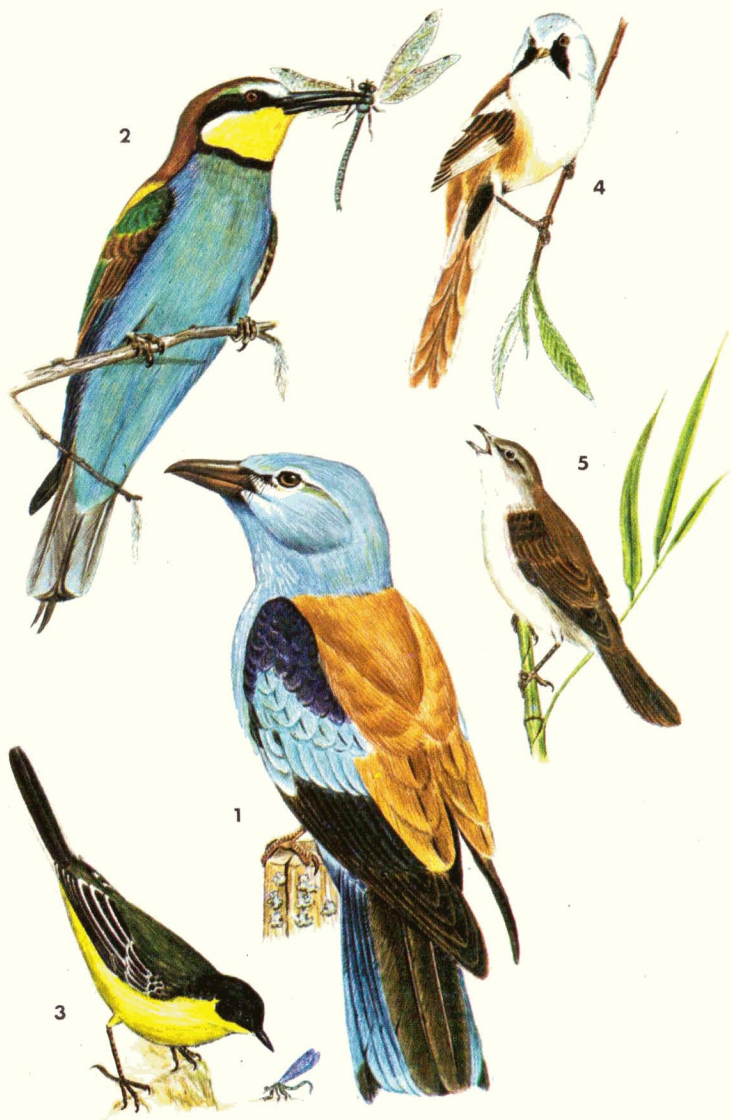
*Panurus biarmicus*

Recognizable by its cinnamon-brown upper-parts, its long tail of the same colour and reddish-grey under-parts. The ♂ has a black conspicuous stripe, «moustaches», ash-grey head, and black under tail-coverts. The ♀ is more light-coloured, with brownish head, without moustaches. Her under tail-coverts are brownish. Juveniles similar to ♂, with dark patterns on back. 16 cm. 1 - 4 (5 - 6) 7 - 12.

## 5. Cetti's Warbler

*Cettia cetti*

Upper-parts are dark reddish-brown. Has short, white stripe above the eyes. Under-parts are ashy-white, with brown sides. When excited, flicks its broad, very rounded and brown tail downwards. 14 cm. 1 - 4<sub>1</sub> (4<sub>2</sub> - 6) 7 - 12.



## 1. Reed Bunting

*Emberiza schoeniclus*

Roughly the size of a sparrow. The ♂ in nuptial plumage has black head and throat with characteristic white band from cheek to nape. Has brownish-black bands on upper-parts, while the under-parts are light-coloured with brownish-black bands on sides. In winter plumage the black feathers of the head are replaced with a brownish crown. ♀ and juveniles have brown head with yellow-brown eye-stripe. 15 cm. 1 - 4 (5 - 6) 7 - 12.

## 2. Great Reed Warbler

*Acrocephalus arundinaceus*

The largest warbler. Upper-parts uniformly brown, under-parts whitish with yellow-brown sides. Characteristic whitish band above the eye. Builds hanging nest amid the reeds. 19 cm. 4<sub>2</sub> (5 - 6<sub>1</sub>) 6<sub>2</sub> - 9.

## 3. Penduline Tit

*Remiz pendulinus*

Head and neck characteristically ashy-white, with broad black patch on cheeks. Reddish-brown back. Pale yellow belly. Juveniles preponderantly light-brown, without dark patterns. Maximum weight, 12,5 grammes. Its bag-shaped nest is typical, with its funnel-like entrance, loosely hanging from branches, often above the water surface. 11cm. 1 - 4 (5 - 6) 7 - 12.

## 4. Kingfisher

*Alcedo atthis*

Unmistakable, with its brilliant metallic blue and emerald-green upper-parts, white throat and white patch on sides of neck. Cheeks and under-parts, reddish-brown, long dagger-like bill, very short bright-red legs and feet. Frequents clear streams and waters with steep banks, where it digs its nest. 16 cm. 1 - 5<sub>1</sub> (5<sub>2</sub> - 6) 7 - 12.

## 5. Sand Martin

*Riparia riparia*

A small swallow, with uniformly brown upper-parts, whitish under-parts with brown band on breast, and slightly forked tail. Common near fresh waters. Builds nest on steep banks, flies above the waters where it finds nourishment. Nests in colonies. 12 cm. 3<sub>2</sub> - 4 (5 - 6) 7 - 9.





## INDEX

Avocet	9	Ἀβοκέτα
Bee-eater	15	Μελισσοφάγος
Bittern, Little	2	Νανομουγκάνα
Bunting, Reed	16	Καλαμοτσίχλονο
Coot	7	Φαλαρίδα
Cormorant	1	Κορμοράνος
— Pygmy	1	Λαγγόνα
Crane	4	Σταχτογερανός
Curllew	8	Τουρλίδα
— Stone	9	Πετροτριλίδα
Duck, Ferruginous	5	Βαλτόπαπια
— Tufted	7	Τσικνόπαπια
Eagle, White-tailed	11	Θαλασσαιετός
Egret, Great White	3	Ἀργυροτσικνιάς
— Little	3	Λευκοτσικνιάς
Gadwall	5	Φλυαρόπαπια
Garganey	6	Σαρσέλα
Godwit, Black-tailed	8	Ὀχθοτούρλι
Goose, Greylag	4	Σταχτόχηννα
— Red-breasted	4	Κοκκινολαιμόχηννα
— White-fronted	4	Ἀσπρομετωπόχηννα
Grebe, Great Crested	1	Σκουφοβουτηχτάρα
Greenshank	10	Πρασινοσκέλης
Gull, Audouin's	13	Αἰγαιόγλαρος
— Black-headed	12	Καστανοκεφαλόγλαρος
— Herring	12	Ἀσημόγλαρος

— Little	12	Νανόγλαρος
— Mediterranean	12	Σκυλοκούταβος
— Slender-billed	12	Λεπτοραμφόγλαρος
Harrier, Marsh	11	Καλαμόκιρκος
Heron, Grey	2	Σταχτοτσικνιάς
— Night	2	Νυχτοκόρακας
— Purple	2	Πορφυροτσικνιάς
— Squacco	3	Κρυπτοτσικνιάς
Ibis, Glossy	2	Χαλκόκοτα
Kingfisher	16	Ἄλκυόνα
Kite, Black	11	Τσίφτης
Lapwing	9	Καλημάνα
Mallard	5	Πρασινοκεφαλόπαπια
Martin, Sand	16	Ἵοθοχελίδονο
Merganser, Red-breasted	7	Λοφοπρίστης
Moorhen	7	Νεροπουλάδα
Owl, Short-eared	11	Βαλτόμπουφος
Oystercatcher	8	Στρεϊδοφάγος
Pelican, Dalmatian	1	Ἄργυροπελεκάνος
— White	1	Ροδοπελεκάνος
Pintail	6	Σουβλόπαπια
Plover, Grey	10	Ἄργυροπούλι
— Kentish	8	Θαλασσοσφυριχτής
— Little Ringed	8	Ποταμοσφυριχτής
— Spur-winged	9	Ἄγκαθοκαλημάνα
Pochard	7	Κυνηγόπαπια
— Red-crested	6	Ροπαλόπαπια
Pratincole	10	Νεροχελίδονο
Rail, Water	7	Νεροκοτσέλα
Redshank	9	Κοκκινοσκέλης
Roller	15	Χαλκοκουρούνα
Ruff	10	Ψευτομαχητής

Shearwater, Cory's	13	Ἄρτέμης
— Manx	13	Μύχος
Shelduck	5	Βαρβάρα
— Ruddy	5	Καστανόχηνα
Shoveler	6	Χουλιάροπαπια
Snipe	8	Μπεκατσίνι
Spoonbill	2	Χουλιανομούτα
Stilt, Black-winged	9	Καλαμοκανός
Stint, Little	10	Νανοσκαλίδρα
Stork, Black	3	Μαυροπελαργός
— White	3	Λευκοπελαργός
Swan, Mute	4	Βουβόκυκνος
Teal	6	Κιρκίρι
Tern, Black	13	Μαυρογλάρονο
— Caspian	14	Καρατζάς
— Common	14	Ποταμογλάρονο
— Gull-billed	14	Γελογλάρονο
— Little	14	Νανογλάρονο
— Whiskered	14	Μουστακογλάρονο
— White-winged Black	13	Ἄργυρογλάρονο
Tit, Bearded	15	Μουστακαλής
— Penduline	16	Σακουλοπαπαδίτσα
Turnstone	10	Χαλικοκυλιστής
Wagtail, Yellow	15	Κιτρινοσουσουράδα
Warbler, Cetti's	15	Ψευταηδόνι
— Great Reed	16	Τσιγλοποταμίδα
Wigeon	6	Σφυριχτάρι

The numbers refer to the plates



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