



Pelican Way of LIFE (LIFE18 NAT/NL/716)

"Conservation of the Dalmatian Pelican along the Black Sea - Mediterranean Flyway"

Dalmatian Pelican Identification Manual

Companion document to the "Dalmatian Pelican Monitoring Manual"



December 2020

Authored by:

Giorgos Catsadorakis and Olga Alexandrou,
Society for the Protection of Prespa

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Dalmatian Pelican Identification Manual - Companion document to the "Dalmatian Pelican Monitoring Manual"

December 2020

Authors: Giorgos Catsadorakis¹ and Olga Alexandrou²

^{1,2}Society for the Protection of Prespa, Agios Germanos, GR-53150, Prespa, Greece,

¹doncats@otenet.gr, ²o.alexandrou@spp.gr

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Introduction

Visual identification of the Dalmatian pelican seems like a straightforward task, yet in sites used by both species (the Dalmatian pelican and the great white pelican) identification can be tricky, especially when the observer is located some distance away from the birds. Hardly any useful material has been published on the sequence of moults and plumages of the Dalmatian pelican, and this gap often creates confusion and uncertainty about the accuracy of data in regards to ageing of Dalmatian pelicans, as well as frequently undermining confidence in census numbers. In this guide, the transition from one plumage to another, the times of the year at which moults occur and the areas of feathers involved in partial moults are discussed in more detail.

General notes

- Plumage and moulting patterns of DP have not been studied in detail. There is a protracted and variable period of gradual change. During the whole annual cycle pelicans that are in various stages of moult can be encountered.
- In general, a progressive plumage change takes place from young birds to immature and adult ones within 3 years.
- Age at maturity is at 2-3 years old. We have never known a 2nd calendar year (CY) bird to breed, or even to have an extremely red gular pouch, which is a sign of high-level sexual hormones. 3rd CY birds may be ready to breed, but may not yet have attained full adult plumage.
- Exterior pouch colour and markings are very helpful for ageing.
- Interior pouch marking & colour is also age-specific.
- Iris colour is characteristic of age.
- In this guide we focus on coverts (the body contour feathers of the mantle, back and rump, as well as the lesser, median and greater wing-coverts of the upper wing).
- In regard to sexing: In the field, and especially from a long distance, it is generally not possible to distinguish the sexes. However, when handled, most birds can be sexed using bill / culmen length.



Early June, Prespa. The 4 birds in the front are all adult GWPs in almost full breeding plumage. Note the buff-tinged body feathers, particularly on the chest, and the overall rosy tint. Also the colour of the bare skin around the eye: birds 1, 3 and 4 (from the left) are males and this skin is pinkish, while bird 2 is female and it has an orange hue. The 3 individuals at the back are adult DPs who have already started turning to post-breeding plumage.



The two birds on the left are DPs and the two on the right GWPs. Note that the difference in the colour of the wings when seen from below is much stronger than when seen from above, when the differences are almost non-existent.



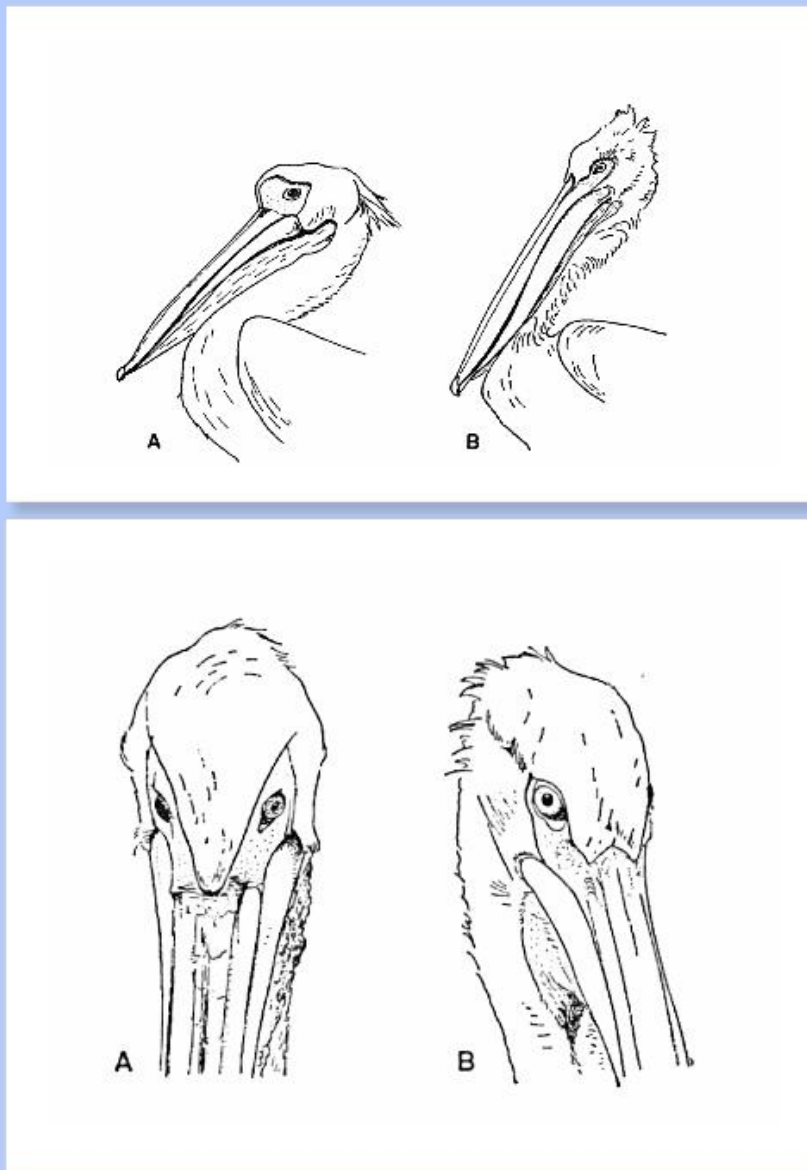


The underwing pattern of the two species is clearly distinguishable, but an immature DP (top right) might bear more resemblance to the GWP pattern.



The identification of juveniles of the two species is often confusing especially in birds around 5-8 months old. There is a high variability of plumages at these ages, and the two species may be very similar. DP juveniles (upper photo) have lighter colours in general and a different facial pattern (see next sketches), while their pouch is light grey or skin-coloured, but never turns yellowish. In contrast, GWP juveniles (lower photo) have a much darker plumage most of the time, with a different facial pattern, and at first their pouch colour is very dark grey-brown but around the end of the year it starts turning yellowish. The GWP juvenile in the foreground is much lighter – and probably also a bit older – than the rest in the background.





Despite the differences and similarities that might exist between the plumages of the two species at various stages, there are basic characteristics of the facial patterns (bare-skin areas around the eye and feathered parts) that can be used to distinguish the two species in the field. A: great white pelican and B: Dalmatian pelican (source: *Bauer & Glutz von Blotzheim 1961*).

A visual guide to DP eggs and pulli, plus young birds, very close to fledging (2½ - 3 months old), and fully - fledged juvenile



Eggs by 1st time mother



Hatching egg



1-day old chick



10 and 12 days old chicks



12-15 days old chicks



Right: 20+ days old
Left: 30+ days old



L: 25 days, R: 30 days old



Young at centre: 2 months old (60 days)



2,5 -3 months old young (70-90 days)



Over 150 days old



An adult in December, which has not yet attained full breeding colours but is going to in a few days.



A 3rd CY bird, as can be judged from the brownish-grey wing coverts, but which has full breeding colours on the pouch and the bare parts around the eye, which denote a bird that is fully able to breed. Photo taken in January.



A 3rd CY bird in breeding phase in March - note the brownish-grey wing coverts.



Three adult birds with a gradation in the level of their breeding hormones reflected in the intensity of the colour of their gular pouch and the bare skin around the eye, and the development of nape-crown crests. Skin colour is attained gradually, starting from slightly yellowish to orange and orange-red to deep crimson-red. After the end of the breeding season pouch decolouration to skin-coloured / yellowish takes place quickly. During the breeding season the proportion of individuals with very crimson-red pouches shows the potential for new breeders in the population.

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Immature, 2nd CY birds: a DP in May in the upper photo, and a GWP in March in the lower photo.





Interior pouch marking and colour, and iris colour, are indicative of DP age. Birds 1, 3, 4 and 5 (from left) are adult birds in their breeding phase -note the blackish basal part of the pouch and gape. Bird 2 is an immature bird -note the entirely colourless gape and pouch, and the darker iris.

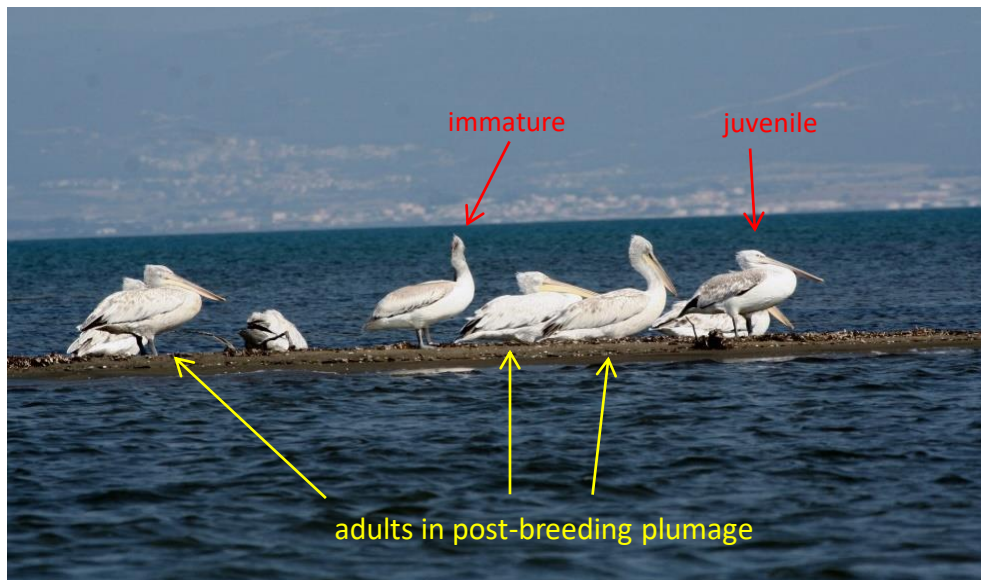
(source: Bence Mate, <https://matebence.hu/en/#atrwork32>, Kerkini, 14-2-2011).



An end-of-October photo at Kerkini Lake, Greece, showing several DP adult birds with pouches that have started changing colour to tones of orange, but no individual has yet attained deep crimson-red breeding colour. Note also the darker immature birds with drab-coloured pouches.



Variations in the development of crown/nape crests of adult birds in February in Kerkini, whilst the pouch colour is almost fully developed.



A variety of post-breeding plumages in August, Evros Delta, Greece. The left and right indicated adults have similar plumages with sparse dark wing coverts, but the central adult has almost no dark wing coverts, or a few faint ones. The indicated immature bird is more densely and heavily spotted with dark wing coverts. The juvenile bird is darker, but the wing coverts are much less variable and have a much more regular pattern.



Two contrasting cases of June plumage in adult birds. The upper bird has already moulted its mantle feathers to shorter very dark brownish-grey ones, while the bird below still retains elongated white feathers with black shafts. The date that the moult starts is probably related to the date of laying initiation and the success or failure of breeding.





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A late June photo of a group of adult DPs (and a GWP in the centre), most of which have not yet started their post-breeding moult, although one in the centre has already moulted to heavily dark-spotted wing coverts. Such birds are most likely to be misidentified as juveniles or immatures when observed from far away.



An adult DP in August, heavily marked with brownish-greyish wing and mantle coverts after the post-breeding moult.

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<https://life-pelicans.com/>

Conservation of the Dalmatian Pelican along the Black Sea - Mediterranean Flyway

Conservation of the Dalmatian pelican along the Black Sea - Mediterranean Flyway project ("Pelican Way of LIFE") is a conservation project for the Dalmatian pelican (*Pelecanus crispus*) in Europe. It aims to reduce the threats to the birds and improve their habitat at 27 sites in Romania, Bulgaria, Greece and Ukraine. It will also support capacity building and research in Turkey, Albania, Montenegro and North Macedonia.

Coordinated by:



Project partners:



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