ICBP-IWRB

FLAMINGO WORKING GROUP

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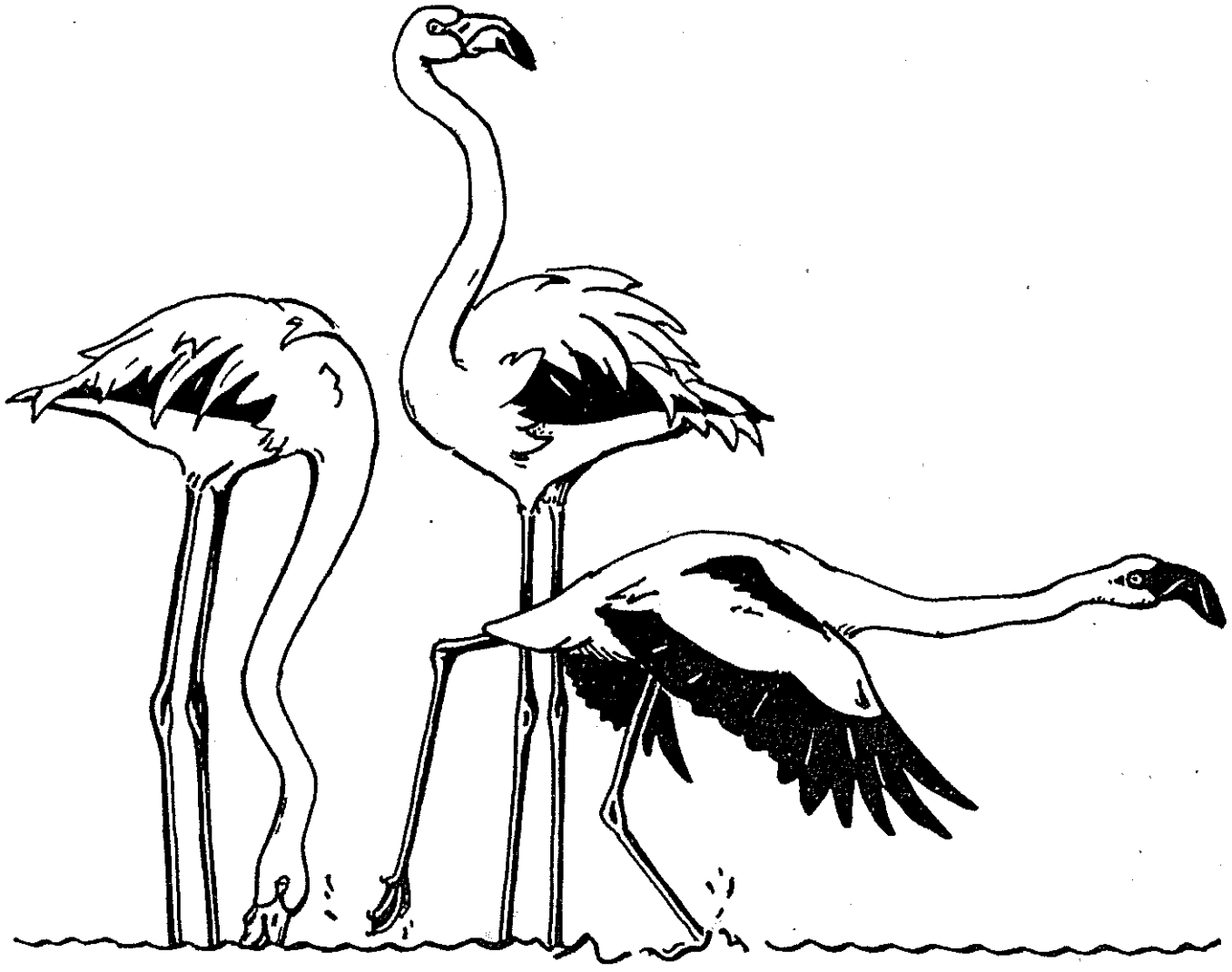

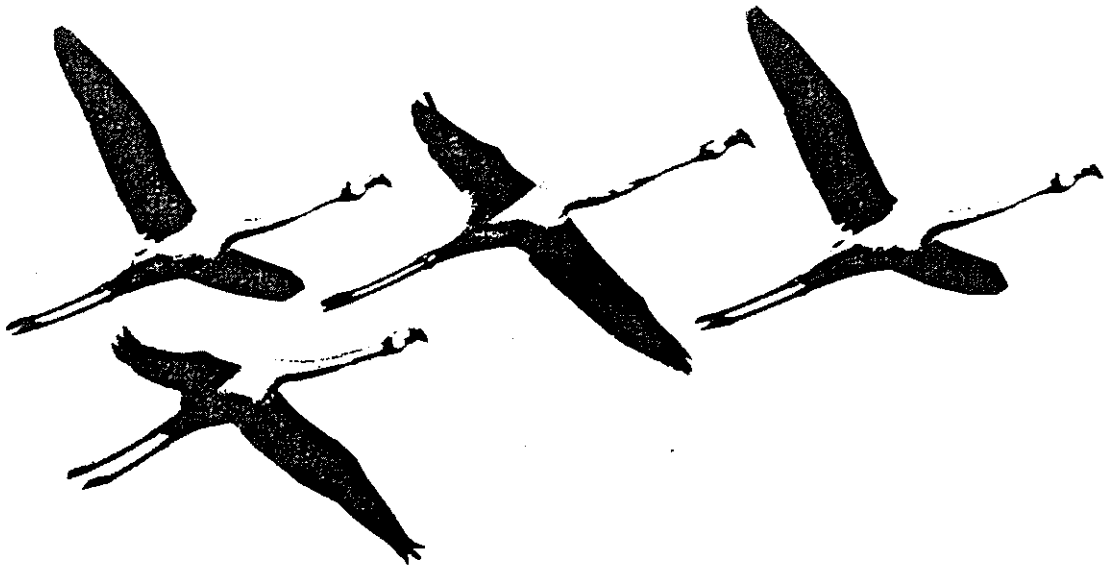

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Cover design by Tobias Salathe, vignettes by Tobias Salathe and Alan Johnson and typing by Pierre Rollin.

INTRODUCTION. by the co-ordinator.

It is now over 4 years since the appearance of Newsletter N°1 (June 1981). The co-ordinators feelings were then, and still are, that the newsletter should appear at least annually. This delay has been brought about through two causes, firstly because the co-ordinator was involved in writing a thesis and busy in the field at the same time and secondly because the newsletter is regrettably very much a one-man effort. It is to be hoped that this situation will change in the near future because this document is really the only means by which the group is maintained as such.

Much has happened during the intervening period. When Leslie Brown passed away in 1980, the group lost one of its former members and only contact in East Africa. Fortunately Leslie was an active writer and his tremendous knowledge on Flamingos in East Africa has been passed on to those interested through several well known and monumental works.

In the New World, Alexander Sprunt has stood down as co-ordinator and his successor is Dr. Bart de Boer who has studied the Caribbean Flamingos on Bonaire.

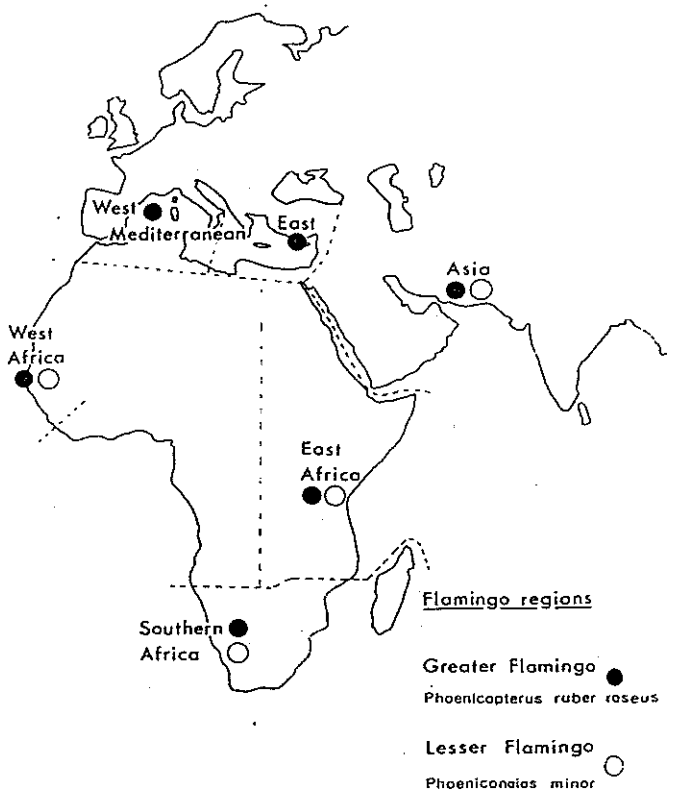
Although the Western Mediterranean holds less than 10% of the world population of the Greater Flamingo, it houses some of the most easily accessible flamingo haunts, quite a high proportion of ornithologists and a research team working full time on the species, thus the abundance of data from this part of the world. However, let us hope that this will not always be the case and that studies will get under way in other places.

Over the past four years, the Old World co-ordinator has represented the group at meetings of the I.W.R.B. in Debrecen (Hungary), October 1981 (Bulletin IWRB 47:79-80) and in La Rabida (Spain), May 1983. A report was sent to the Edmonton (Canada) meeting in May 1982 and a working document on flamingos was prepared for the Bonn Convention. A report was also sent to I.C.B.P. for the XVII World Conference held in Cambridge (U.K.) in August 1982 (Proceedings pp.29-30). Finally, following the Ramsar Convention meeting held in Cagliari (Sardinia) in November 1980, the co-ordinator delivered one of the inaugural speeches when the Italian League for the Protection of Birds (L.I.P.U.) officially declared the lagoon of Sale Porcus (Oristano) a refuge (for flamingos) in particular).

The present Newsletter although dealing mainly with the Old World carries some data on activities in the Americas. Issue N°3 will very likely give equal coverage of activities and events on both sides of the Atlantic. The mention "Old World" has thus been omitted.

NEWS FROM THE REGIONS.

(compiled by the Old World co-ordinator)



WEST AFRICA.

Senegal and Gambia.

Correspondents / Information : A.R. Dupuy (National Parks Service of Senegal).

In the framework of the I.W.R.B. mid-winter waterfowl counts, A.R.D. and O. Fournier censused 12,000 Greater Flamingos in the Senegal delta area in January 1981 (7,500 of these were in the Djoujd National Park and 4,500 on the Mauritanian side of the river (report by the N.P.S.). Spring 1981 counts by the N.P.S. revealed 1,000 Lesser Flamingos in the Djoudj and about 15,000 Greaters spread over the Djoudj and Saloum Delta National Parks, the Palmarin (Saloum) Reserve, the salines at Kaolack and the Gambia River valley in Gambia. (A.R.D.)

Mauritania.
Report from E. Mahé, Parc National du Banc d'Arguin.

Flamingos breed at three sites on the "Banc d'Arguin", the "îlot des Flamants" (20°40N) which lies to the south of the "île Ardent" in the Baie d'Arguin and, further south, on the "îles Kiaones" (20°N). The former is a sandbank only some tens of metres in length at high tide where the flamingos build their typical cone-shaped mud nests. The latter are very different in appearance being rocky sandstone islands with cliffs the larger of the two having a flattened top. The flamingos nest below the cliffs on the screes and also on the top of the smaller of the two islands. No nests are built but the eggs are laid in shallow depressions.

In 1980, breeding took place only on the "îles Kiaones" where, on the 14th June, an aerial survey revealed about 1,000 birds on nests at the southern point of the smaller island. A further 500 birds were feeding in the vicinity and 2,000 near the neighbouring "île Marguerite".

In 1981, it is not known whether the "îlots des Flamants" was occupied or not. At Kiaone, Mr. Maigret (CNROP) noted in May that breeding was in full swing with 5,000-7,000 birds present. However, observations carried out on the 18th August revealed 700 abandonned eggs on the southern point of the smaller island. The embryos were not developed, indicating that they had been abandonned shortly after laying, the reason for this being entirely unknown.

Flamingos are much more abundant on the Banc d'Arguin in winter than during the breeding season. It would appear from recent counts that the species is increasing in Mauritania but more complete data are required to show if this really is the case. In view of this, the P.N.B.A. plans to carry out an aerial census taking in all areas from the Banc down to Senegal.

In 1982 a total of c.10,000 pairs of Greater Flamingos were observed breeding (on eggs in May) on the two Kiaones and on "ilot des Flamands".

WEST MEDITERRANEAN.

France.

Greater Flamingos continue to nest annually in the Camargue where it would appear that in 1983 practically all the potential breeders of the West Mediterranean were united. Aerial photos revealed 14400 occupied mounds at the height of the breeding season, the largest colony on record for the whole of the Mediterranean region. The population is monitored and is being studied primarily by individual recognition in the field of a large number of color-ringed birds. In 1978 some birds began feeding at night in the freshly sown rice-fields of the Rhône delta (April-May). This habit continued to develop in 1979 and in 1980 farmers reported extensive damage to the crop (410 ha. destroyed). A scaring campaign was carried out in 1981 using Very pistols and bird scarers and this was highly successful. Subsidised by the Ministry of the Environment the campaigns were renewed the following years with the same encourageing results with little, if any crop damage over the past four years. The problem was brought about by exceptionally heavy rains in spring 1978 and resulting unsuitably high water levels in the National Nature Reserve and elsewhere. At the same time there was a relatively high population of flamingos in the delta.

Spain. (inf : J. Amat, J.M. de Benito, A. Carrera, J. Castroviejo, R. Coronado, L. Garcia, J. Hidalgo, G. Theler).

Prior to 1984 flamingos attempted to breed in Fuente Piedra in 1982 but because of the low spring water level and subsequent drying out of the lagoon they probably failed to raise any chicks. The previous successful breeding attempt dates back to 1979. Over the past 20 years (1963-1982) flamingos have attempted to breed here on 9 occasions. In 1984 5700 pairs bred. The owners (ICONA) pumped water from a nearby well into the lagoon and breeding was largely successful because of the conservation action. A second Andalucian colony was established in 1984, in the Marismas of the Guadalquivir. This was only the eighth breeding attempt recorded in this well known reserve/park this century. Five-six thousand pairs bred successfully but here also problems with the drying out of the breeding lagoon meant that conservation action was required in order to clear a path through vegetation to allow the chicks to reach water.

Tunisia. (inf. M. Smart)

Because of low water levels in the few favourable but temporary sites in this country breeding has not been recorded since 1976 and the last successful breeding attempt dates back to 1974.

EAST MEDITERRANEAN.

Cyprus.

A sewage treatment plant, planned to be built at Limassol, has been relocated because of the negative consequence the project would have had on wild life in the Akrotiri salt lake region. The government of Cyprus is to be congratulated on this decision. About 10,000 flamingos regularly winter on Cyprus, half of them on Akrotiri. They originate probably from Iran, Kazakhstan and Turkey.

ASIA.

Iran.

The ringing project of Greater Flamingos on L. Rezaiyeh, begun in 1970 by the department of the Environment, will be continued in the future. It should be noted that both rings and neck collars are in use and any recoveries or sightings should be sent to the Department of Environment (A. Mansoori).

India.

The following data have been extracted from a report by Prakash Gole, submitted to the IWRB meeting in the Netherlands in May 1984, entitled Some Wetlands of Ornithological Importance in Western India. Visits were made to some of the major wetlands of Rajasthan and Gujarath states in the winters of 1982, 83 and 84. On Sambar Lake (Rajasthan) in November 1982, 500,000 flamingos were present, Greaters being more abundant than Lessers. This is undoubtely the largest congregation of Greaters recorded since Salim Ali's visit to the Rann of Kutch in 1960 (Ali,S (1960) More about the Flamingos in Kutch. J. Bombay Nat. Hist. Soc., 45: 586-593). Large numbers of flamingos were also seen on the neighbouring Lakes Phulera and Didwana. In January-February 1984, the wetlands of Saurashtra were visited and there also very large numbers of flamingos were seen. According to the author, this peninsular is undoubtely the major wintering area for both Lessers and Greaters.

The Gulf of Kutch was visited in 1984 by an expedition from Oxford University. They reported seeing small numbers of juvenile flamingos of both species (see Flamingos in Gujarat (India) pp 28-29).

GRUPO DE ESTUDIO DE LOS FLAMINGOS DEL MUNDO NUEVO.

Aceptando la funcion de coordinator del Grupo en 1982, la primera tarea era hallar los miembros. Afortunadamente una cantidad de las personas a quienes mande la encuesta respondieron y resulto que el grupo ahora consiste de once miembros representando siete paises. La lista de los miemebros se halla aqui bajo. Ya estoy convencido que hay mas personas interesados en los flamingos pero que no saben todavia de la existencia del grupo. Si ustedes conocen a alguien que quiere hacerse socio del grupo, por favor mandeme su nombre y direccion.

El coordinator tiene la tarea de dar asistencia y consejo si los miembros lo piden. Tambien tiene que mantener la communicacion entre los miembros y con ICBP y IWRB. Las preguntas que me llegaron por la mayoritad trataban de la necesidad para fondos. Especialmente con Venezuela estaba una cooperacion buena en este respecto. Los miembros me dieron un resumen de la situacion de las populaciones de los flamingos en sus paises respectives. Parece que necesita mas investigaciones sobre las populaciones de los especies Andinas. En Venezuela se preocupan en los propositos para el desarollo de la region costal, con el riesgo de destruir la habitat de los flamingos. Tambien en Mexico la situacion no es optimal. La compania de sal en Yucatan ha destruido una area de nidificacion de los flamingos aunque un decreto presidencial lo prohibio explicimente. Osea que presion internacional puede llegar a un cambio en esta situacion.

Es nuestra intencion de publicar este boletin por menos una vez pro año. A este fin necesitamos informacion de los diferentes paises. Por favor, si hay desarollos nuevos, articulos recientes, proyectos de conservacion o medidas tomados en respecto al conservacion de los flamingos. Tambien si hay cambio de direccion, function etc..., por favor me notifique. Es la unica manera para quedar al corriente de las problemas y desarollos en la conservacion de los flamingos.

Bart A. de Boer
Coordinator para el mundo nuevo,
Carmabi,
P.B. 2090,
Curacao,
Netherlands Antilles.

NOTICIAS DE LOS PAISES.

La parte siguiente contiene la informacion sobre las populaciones de los flamingos que recibia en 1983. Si hay informacion mas reciente me agradeceria de recibirla. Es la intencion que los miembros contribuyen a este boletin tambien. Para el proximo boletin sea buena collectar informacion nueva sobre la situacion de los flamingos en los diffferentes paises. Por favor mandeme su remarques, datos nuevos, commentarios y noticias.

Argentina (correspondente P. Canevari)

No hay evaluaciones completas de las poblaciones de flamingos de la Argentina como parar tener una estimacion de la cantidad de individuos. P. chilensis esta praticamente en todo el pais y con colonias de nidificacion tambien muy dispersas. Un centro importante es la laguna de Mar Chiquita en Cordoba, donde el Dr. Bucher ha estimado una poblacion de unos 70.000 ejemplares. Este sitio esta parcialmente protejida por la provincia de Cordoba. El otro sitio con proteccion es el M.N. laguna de Pozuelos donde ha estimado unos 25.000 ejemplares repartidos entre las tres especies.

Chile (corr. A. Glade, J. Rottman Sylvester, H. Torres)

En Chile P. jamesi, P. andinus y P. chilensis estan protegidas en toda la Republica. A pesar de eso hay masivo consumo de huvos por el hombre. Sr. Rottman da la siguiente estimacion de los numeros de las tres especies :

P. jamesi : 3000-5000, nidification irregular.
P. andinus : 4000-6000, nidificacion mas regular.
P. chilensis : 10.000-30.000, nidificacion irregular.

Hay un retroceso numerico evidente en el pais. P. chilensis muestra una fuerta disminucion en Chile Central. Aparte del Parque Nacional Lauca se estan estudiando la creacion de dos reservas nacionales en los Andes. Estudios y proteccion son urgentes.

Republica_Dominicana (corr. J.A. Ottenwalder)

In the Dominican Republic P._ruber_ruber is fully protected by law. Part of the population stays within national parks limits. The winter population consists of 2000-4000 birds; in spring and summer there are 1000-2000. The habitats in which they dwell are lagoons, lakes, shallow brackish water and mangrove swamps. The population is threatened by habitat destruction.

Mexico (corr. A.C. Rogel Bahena)

La populacion de los flamingos en Mexica se encuentra en Yucatan donde se decreto como zona de refugio faunistico una area en el nortoeste de la peninsula. La situacion de los flamingos es problematica. Sr. Rogel Bahena reporto lo siguiente :

En el refigio se han venido efectuando alteraciones ecologicas en las areas de anidacion y alimentacion del flamingos, causados por la expansion y ampliacion de estanques, para la produccion de sal por la compania salinera Las Coloradas, la cual tiene la concesion del gobierno federal para la explotacion de esta zona. Hasta 1978 el numero de charcos era de 10, actualmente se ha elevado el numero de las mismas a 25 a todo lo largo del rio, trabajos que se han efectuado sin importar el decreto presidencial de 1979, en el que se senala como zona de refugio faunistico. La reduccion de estas areas por bordes, construidos por la salinera, ha causado que desaparezcan dos importantes areas de anidacion del flamingo, estas han sido cerradas y bardeadas para la formacion de nuevos charcos.

Actualmente la unica zona de anidacion de los flamingos se ha reubicado en el area al este del Puerto el Cuyo. Esta area no presenta corrientes o movimientos del agua; en cambio presenta una mayor concentracion de salinidad, la cual se refleja en los bajos niveles troficos.

La destruccion del habitat ha ocasionado polemica entre la S.A.R.H. y la compania, esta ultima sostiene que lo importante es producir sal y dar trabajo al pueblo, con la cual la compania obtiene ingresos sustanciales mientras se esta destruyendo un habitat, lo cual margina a los flamingos a otras poco favorables para su reproducion y alimentacion.

Estimaron la poblacion a un total de 26000 aves. La produccion de pollos por año era :

año	pollos
1975	478
1976	1100
1977	320
1978	3000
1979	4000
1980	4000
1981	4000

En 1982 y 1983 no salieron pollos porque lluvias fuertas causaron la inundacion de los nidos, destruyendo en 1983 4500 huevos. (Sr. Rogel Bahena pidio asistencia y fondos de sociedades conservacionistas internacionales para mejorar estas areas. No tengo informacion sobre la situacion en este momento. B.)

Bahamas (corr. A. Sprunt)

The situation in the Bahamas has not changed much in the past few years. The colony on Inagua remains in good condition. Anywhere up to 6000-7000 pairs breed there regularly. In recent years small colonies of from 50-300 pairs have nested on Hispaniola in the Dominican Republic and on Acklins in the Bahamas. These are probably spinoffs of the Inagua colony that has now been protected for 30 years. Banding has shown that both the Dominican Republic and Acklins populations have Inagua birds in them. In 1982 Mr. Sprunt spent a week on Cuba in company of Dr. Hiram Gonzalez. There were quite a number, 1500-2000, flamingos in the salinas of the Zapota Swamp, Matanza Province, during the last week of September. It seems they do not breed there and no birds are seen from May to August. Mr. Sprunt will try to get more information on this.

Netherlands Antilles (corr. B.A. de Boer)

Bonaire has always been the main breeding ground for the Southern Caribbean flamingo population. When the nesting site was included in the construction of a solar salt plant (1969) the effects on the flamingos had to be determined. From 1975 to 1980 investigations were carried out. It became clear that the main feeding areas of the flamingos are situated along the coast of Venezuela, stretching even up to Colombia at one side and to Surinam on the other. Breeding success is highly dependent upon the presence of water at these feeding sites and hence upon the amount of precipitation before and during the breeding season. On Bonaire the flamingos have switched to a diet of marine snails. The food situation in the salt pans of the solar salt plant are not optimal. The total number of flamingos was estimated at 12000. New counts have resulted in considerably higher numbers (see Venezuela).

Venezuela (corr. M.L. Goodwin)

El Comité de Conservacion es muy preocupado sobre la situacion en las areas de alimentacion para los flamingos a lo largo de la costa. Deserallos agriculturales, industriales y recreacionales resultan en dano a estre areas, destruccion de manglares y areas forestales, construccion de carreteras y ensuciamento quimico. Como base para un proposito de conservacion el comite es collectando datos scientificos sobre el habitat, alimentacion y distribucion de los flamingos en Venezuela. Las investigationes estan bajo la direccion de Sr. M. Lentino, biologo. Aunque han trabajado solamente para un año ya descubrieron muchos datos nuevos. Censos aereos revelaron que el numero de los flamingos era mas alto que pensaban : subieron la estimacion hasta 17000 ejemplares. Tambien descubrieron sitios nuevos donde gran cantidades de flamingos buscan alimiento. Todos los sitios a lo largo de la costa son de importancia para los flamingos. Este proyecto necessita fondos urgentamente para seguir. Lastimente el WWF no pudo fundar este proyecto para el año 1984. Es de esperar que sea possible de consequir fondos para el proximo año de IUCN/WWF en el cadre de sus proyestos de areas aquaticas (Wetlands proyect).

Necesita informacion sobre ..... Information requested.....

Dr. Hulbert me mando la direccion de Sr. Heriberto Salamanca, Cordepo, Casilla 230, Potosi, Bolivia. Sr. Salamanca es ocupado con un proyecto de conservacion del flamingos en Lago Colorado, Bolivia. He escrito a Sr. Salamanca pero no recibia un responde. Quien tiene mas informacion sobre este proyecto o quien tiene contacto con Sr. Salamanca ?

If you have published an article on flamingos, please send a reprint to the coordinator.

LESSER FLAMINGOS Phoenicopterus minor IN WEST AFRICA IN 1983-1984.

P.J. Dugan.

During the course of the winter 1983-84 groups of Lesser Flamingos Phoenicopterus minor were recorded in Senegal and in Guinea-Bissau. In both areas the flocks were composed largely, but not exclusively of adult birds (table 1). The number of juveniles was much higher in Guinea-Bissau.

The origin of these flamingos is unknown . The existence of a discrete West African breeding population has been the subject of much discussion. Indeed Lesser Flamingos did breed in Mauritania in 1965 (Naurois 1969) but not since. It is also possible that the birds seen during winter 1983-1984 came from the East African population. At present it is not possible to distinguish between these two possibilities. However the presence of young birds indicates that if these do indeed belong to a discrete West African population of the species then there is in the region a breeding site which has not yet been discovered. Consequently it is of great importance to confirm or refute this possibility as soon as possible. If such a site does exist its immediate protection must be a high conservation priority in the region.

Table 1 . Sightings of Lesser Flamingos Phoenicopterus minor in West Africa in 1983-84.

Country	Site	Date	Total N° of birds	N° of juveniles
Sénégal	Parc National des oiseaux du Djouj	28.11.83 - 05.12.83	127	8
Guinea-Bissau	Mudflats near Cacheu	10.03.84	180	40

REFERENCE.

Naurois, R. de (1969). Peuplements et cycles de reproduction des oiseaux de la côte occidentale d'Afrique. Mém. Mus. Nat. d'Hist. Nat. (A) 56: 1-293.

PREDATION OF FLAMINGOS IN THE CAMARGUE BY HERRING GULLS.

By Tobias Salathe

All concentrations of birds are likely to attract predators which profit from the high density of prey. Colonies of flamingos are no exception and are visited by both avian and mammalian predators. Articles by Brown (Ibis, 1958, 100 : 388-420), Brown & Johnson (in Kear & Duplaix-Hall (eds) Flamingos, 1975: 17-25, 38-48) and Uys et al. (Ostrich, 1963, 34 : 129-154) enumerate the species recorded in the Old World. In addition two photographic articles (National Geographic, 1973, 144 : 534-539 and Das Tier, 1982, 4 : 14-18) illustrate how hyenas in Kenya hunt Lesser Flamingos.

Cases of predators specialising on flamingos are rare. However, at Lake Rezaiyeh (Iran) and in the Camargue (France) some of the Yellow-legged Herring Gulls (Larus cachinnans) do predate specifically on eggs and chicks of Greater Flamingo (Phoenicopterus ruber roseus).

It is quite remarkable how the Herring Gull has developed techniques for removing incubating flamingos from the nest. One technique which is used is to seize the flamingo by its bill and pull, the gull either flying over the island (windy weather) or from a standing position usually on the edge of the island. Another technique is that the gull approaches the flamingo from behind and pecks once or twice at the flamingo's tarso-metatarsal joint, causing the flamingo to stand. Predation also takes place in the creches, the larger flamingo chicks being taken by the combined effort of two or more gulls.

Most predation is by the gulls which nest on the same island as the flamingos and which they defend against intrusion by other adult gulls. Flamingos are ill-equipped to defend their egg or chick when attacked and find security in nesting in dense colonies and in having a certain synchronisation in laying. Birds breeding on the edge of the colony, or those in the less tightly packed groups, are the more vulnerable. In the creches chicks defend themselves by packing tightly together when a gull approaches.

During the 1980 breeding season the number of eggs and chicks taken by the gulls was estimated to be at least 11% of the eggs laid (replacement clutches not being taken into consideration). In addition, the gulls also took the 32% of eggs abandonned by the flamingos (Salathé 1983). This resource, however, only satisfied about half of the food requirements of the 14 pairs of gulls breeding on the flamingo island.

An analysis of the trend of the flamingo population of the Camargue shows that the gulls have no influence upon the number of breeding flamingos under present conditions.

Footnote : more recently (1981-1984) predation by the gulls would appear to be much more important with close to 50% of the clutches laid being lost to the gulls.

STORM-DRIVEN FLAMINGOS IN FRANCE.

by A.R. Johnson

Flamingos in France are restricted in their distribution to the lagoons of the Mediterranean coast. These lie between the Spanish border in the west and Hyères in the east, taking in the departments of Pyrénées-orientales, Aude, Hérault, Bouches-du-Rhône and Var. The furthest point inland of any of these lagoons lies within 15 km of the shores of the Mediterranean and only exceptionally do flamingos occur elsewhere in the country.

From 8-10 November 1982 exceptionally strong S.E. winds blew across much of Western Europe causing considerable damage to roads and buildings and up-rooting trees. Migrating Cranes (Grus grus) were blown off course in northern France whilst in the south the Mediterranean flooded inland in many places but particularly in the Languedoc. Flamingos in this area were obviously disturbed by the rise in water levels as can be shown by a series of sightings of live birds or the recoveries of dead or injured birds during or after the storm at a considerable distance inland, well beyond the species normal range. All records which have been brought to my notice are indicated below. For each one the distance from the coast and/or from the nearest point where the species normally occurs is indicated as well as the direction taken.

1/ Viviers-les-montagnes (Tarn) : 80-92 km N.W. Etang de Bages. Adult with injured wing found in field (with sheep), probably collided with wire fence. 15th November (Mr. Montagne).

2/ Salleles (Hérault) : 32-39 km N.W. Etang de Thau. Adult found long dead in tree on 19th December (J-M. Cugnasse).

3/ Jonquières (Hérault) : 28-36 km N.W. Etang de Thau. 5 in flight on 9th November (G.Cay per J-M. Cugnasse).

4/ St. Guilhem-le-Désert (Hérault) : 32-37 km N.N.W. Etang de Thau. Found dead one week after storm (Ch. Fadat).

5/ Vallabrègues (Bouches-du-Rhône) : 32-46 km N.N.W. Etang du Vaccarès. Flock seen during storm (R. Lamouroux).

6/ St. Nazaire-en-Royans (Drôme) : 170-180 km N. Etang de Berre. An adult female stayed from 14th-20th November on the river Isère. This was a ringed bird from the Camargue (age 5 yrs) and was observed in the Languedoc (Hérault) only 3 weeks before the storm. It was seen back in the Camargue in 1983 (L. Cistac, D. Pailler, A. Provost).

7/ Chasse-sur-Rhône (Isère) : 225-240 km N. Etang du Vaccarès. 1 in flight with cormorants on 9th November (M. Richoux per L. Cistac).

8/ Lac-du-Der, Chantecoq (Marne) : 550 km N. Camargue. An adult seen to arrive from the S.E. on 9th November was observed again on 11th. On 18th and 20th this bird was joined by a second adult. Between 28th November and 5th December several observations of a single flamingo (Ch. Riols).

9/ Cognat-Lyonne (Allier) : 280 km N.N.W. Etang de Mauguio. One seen on the edge of a lagoon on 9th November (R. Blanchon, D. Brugière).

10/ Abrest (Allier) : 275 km N.N.W. Etang de Mauguio. One from 23rd November to 2nd December (R. Blanchon, D. Brugière). Possibly the same bird as observed at Cognat-Lyonne).

11/ La Ferté-Hauterive (Allier) : 315 km N.N.W. Etang de Mauguio. One seen on the River Allier on the 11th November. Three birds were present on 12th and 4 on 13th then 1 again on 14th November (R. Blanchon, D. Brugière).

12/ Rancogne (Charente) : 360 km N.W. Etang de Thau. 2 in a gravel pit from 8th-13th November (Ph. Dubois).

All these observations concern of course Greater Flamingos (Phoenicopterus ruber roseus) (escaped birds seen in central and northern Europe are usually Chilean or Caribbean), the ringed bird in the Drôme providing the proof of its truly wild origin. The only previous documented observation of flamingos outside their normal range in western Europe concerns a flock of 60 birds seen on the Lake of Geneva on 13th May 1924 (Poncy, 1926).

A possible explanation for these birds being driven away from the south coast is that the sea flooded across the majority of the Languedoc lagoons soon after the storm started to blow on 7th November. As the water level rose birds took wing in search of more favourable places and it was then that some individuals, unable to battle against the wind, were blown inland ; all the observations listed here are from localities lying to the north or north-west of the usual distribution, in and around the Massif Central and up the Rhône Valley and beyond. At least the ringed bird seen in the Drôme was able to find its way back to the south coast.

REFERENCE.

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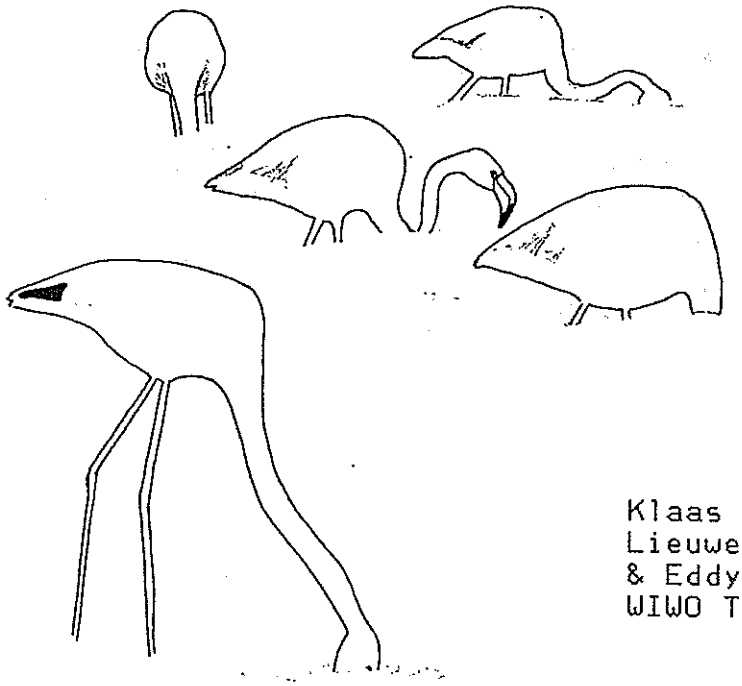

COUNTS AND OBSERVATIONS OF INDIVIDUALLY MARKED FLAMINGOS IN TUNISIA.

by

Klaas van Dijk, Arend J. van Dijk, Lieuwe J. Dijksen, Tom M. van Spanje & Eddy Wymenga.
WIWO Tunisia Project 1984.

From January 19th to March 19th 1984 a Dutch ornithological expedition visited Tunisia in order to study the importance of the intertidal areas in the Gulf of Gabes for the wintering populations of Palearctic waders and waterfowl. Preliminary results are given in the Wader Study Group Bulletin 41 and full results will be published in an expedition report. In co-operation with the Flamingo Project carried out by the Tour du Valat Biological Station, special attention was payed to the Greater Flamingo (Phoenicopterus ruber roseus) observations of which are summarised in this short note.

Tunisia is an important country for the West Mediterranean population of flamingos, particularly in winter. In most years there is no breeding attempt but when there is sufficient water in certain lagoons (chotts) following heavy autumn and winter rains, breeding can take place at several sites in the centre and south of the country. In 1984, several of the more important "indicator" sites were visited but they were dry, or almost so, and it may be concluded that no flamingos were able to breed in Tunisia this year.

Most of the censuses were carried out in February, both at the inland sites and over the intertidal areas of the Gulf of Gabès. A total of 24,739 flamingos were counted (Table 1) and some information on the proportion of juveniles noted (Table 2).

Since 1977 a sample of the flamingo chicks born in the Camargue has been marked with individually coded "Darvic" leg bands (see p.31) legible in the field. Thirty-nine different individuals were identified in Tunisia, mostly near Sfax, and two other rings were collected which had been recovered locally. Flamingos feed in the bay of Sfax at low tide and at high tide rest in the salines at Thyna where it is relatively easy to read rings; 5/2 18 rings out of 495 birds, 8/2 16 rings out of 522 birds present.

It is clear from these visual contacts and from previous sightings (Table 3) that birds of all age groups winter in Tunisia, many of the individuals concerned already having been recorded in the country at an earlier age.

It was a surprise to see a flamingo wearing a neck collar and to receive from a local fisherman the leg of a flamingo with a Russian ring. These two birds, ringed in Kazakhstan (see p.33) constitute the most westerly recoveries of Russian-ringed flamingos and provide evidence of the presence among the West Mediterranean population of flamingos, of birds of Asiatic origin.

Table 1. Results of counts of the Greater Flamingo *Phoenicopterus ruber roseus* on several locations in Tunisia in 1984.

Number	Locations	Date
10,530	Lake Tunis	21 January
–	Lake Ichkeul	22 January
9,739	coast Sfax-La Skhira	26-28 Jan.
–	Sidi Mansour	29 January
10,086	Gulf of Gabès	9-22 Feb.
44	Sebkhet el Djem	16 February
13	coast near Monastir	16 February
316	Halk el Menzel	16 February
5,700	Lake Tunis	19 February
8,500	Sebkha Sedjoumi	19 February
80	Sebkhet Sidi el Hani	22 February
–	Lake Ichkeul	18 March

Table 2. Proportion of juveniles in the Flamingo Count in Tunisia in 1984

n	% juveniles	Location	Date
241	8.3	Kneiss area	Jan - Mar
352	2.2	Thyna, salines	26 January
502	10.1	Thyna, tidal mudflats	1 February
496	9.1	Thyna, " "	5 February
522	10.7	Thyna, " "	8 February
316	1.6	Halk el Menzel	16 February
44	95.5	Sebkhet el Djem	16 February

Table 3. Some data concerning the darvic-ringed Flamingos observed in Tunisia in 1984 and originating from the Camargue. They are divided in birds reported before in Tunisia (old) and birds reported for the first time in Tunisia (new).

year of ringing	total number	Location: Thyna Old	Thyna new	Kneiss Old	Kneiss new	Sedjoumi new
1977	-	-	-	-	-	-
1978	8	4	3	1	-	-
1979	4	3	1	-	-	-
1980	9	5	1	-	3	-
1981	7	4	2	-	1	-
1982	5	2	-	-	2	1
1983	8	-	6	-	-	2

COUNTS OF GREATER FLAMINGOS IN EASTERN LYBIA.

By N.E. Baker

Between October 1977 and November 1979 regular counts were made of Greater Flamingos (Phoenicopterus ruber roseus) along the stretch of coast centred on Benghazi, Libya (32°07' N / 20°06'E). A total of 50 counts were made on 9 different wetlands, these being mostly winter flood pans lying behind the coastal sand dunes. The amount of water in these "sebkhas" and the salinity vary according to local rainfall.

Two of these sebkhas lie to the south of Benghazi and are difficult of access during heavy rain. One of these is being used as the city rubbish dump. To the east of Benghazi the large sebkha 25 km to the west of Tocra can be 20 km in length when fully flooded. It is difficult of access and has probably been under recorded. The Wadi Kouf is the major wadi in the Jebal Akhdar mountains that form the bulge of north-eastern Libya. The counts were made on sebkhas that are fed mainly by water seepage through the limestone hills. This area is within the proposed Wadi Kouf National Park and should represent an important staging post for flamingos moving along the coast. It may well be that regular wintering will occur here once disturbance is reduced to a minimum.

All records of flamingos are from the period September to March with the exception of three April sightings. The majority of flocks number between some tens and 1-200 with a maximum of 398. The largest flocks are habitually recorded at Tocra and at the Benghazi site presently used for dumping rubbish.

Early arrivals in Sept./Oct. are probably birds of Camargue origin and concern particularly juveniles (three ringing recoveries to support this). November arrivals probably concern birds of Iranian origin. Scott (in Kear & Duplaix-Hall, 1975) shows 8 recoveries of birds ringed as young at Lake Rezaiyeh and notes Libya as being of significant importance as a wintering area for immature birds. The only reference prior to this is Stanford (1954 in Bundy 1976) who quotes Booth "Regular between Benghazi and Tocra in numbers varying from 150-2000, August to April".

The age composition of flocks enabled a close check to be made on their movements. It was interesting to watch flocks of immature birds "being led" around the feeding areas by the few adults usually present. No interaction was noticed between flocks present on the same water. Apart from alarm situations they moved independantly of one another. It is not known if the "baby sitting" adults stayed with the immature flocks throughout the winter and during the return migration in spring. The earliest date for an all immature flock was January 25th but adults remained nearby. Certainly no immature flocks arrived without adults and all the larger late March flocks had some adults present.

Due to disturbance (shooting of anything that moves is becoming quite a fad in Libya) and varying water levels the flocks of birds along the coast were rarely sedentary. Even the quite remote one near Tocra varied in location and numbers on each count. The smaller flocks around Benghazi were in constant state of flux although any given area usually held birds throughout the winter. It would appear that more birds passed through the area than wintered. They are irregular and scarce in western Libya (Bundy, 1976) but a glance at the map shows huge areas of Sebkha and permanent water along the southern and eastern coast of the Gulf of Sirte. Many of these are in remote areas and probably hold the greatest number of wintering flamingos. It would be of interest to know how far west these birds wintered and how often they come into contact with those from colonies in the western Mediterranean. It is quite probable that wandering immatures from the Camargue join the larger flocks from Iran and migrate eastwards with them in the spring.

The coastal belt around Benghazi is an important wintering area and staging post for these birds. Protection may not be necessary in the remote areas but effective legislation and education are needed to prevent birds in the Benghazi area from being harassed. The combination of a dry winter and widespread shooting would have a disastrous effect on these birds.

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Dar Es Salaam
Tanzania.

30th January 1984.

Date	Location	Counts
7th October 77	Benghazi - L	1 imm present until 8th November 77
23rd "	"	
26th "	Benghazi - Q	2 ad - 1 imm
5th November	Benghazi - P	14
8th "	"	38 (including 5 imm)
15th "	"	33 (all adults)
16th "	Benghazi inshore	14 flying E to W
21st "	Benghazi - P	49
2nd December	Tocra	48
21st "	Benghazi - P	19
22nd "	Benghazi -	26 + 23
25th "	Benghazi - E	5
28th "	"	19
5th January 78	Benghazi - E	11 (inc 1 ad)
14th "	"	34 (inc 3 ad)
20th "	Benghazi - P	22
25th "	Benghazi - Q	86
26th "	Benghazi - P	26 (inc 2 ad)
27th "	Tocra	38 + 34 (all adults)
3rd February	Benghazi - P	180
10th "	60km East Benghazi	8 + 22
17th "	Benghazi - Q	68
22nd March	"	large flock
29th April	Benghazi - P	4 adults
11th September	Benghazi - L	1 ad + 1 imm
9th October	Benghazi - P	1 imm
16th November	Tocra	398 (c70% imm)
26th "	Benghazi - Q	262 + 80
1st December	Benghazi - P	164 (inc 3 ad)
	Benghazi - Q	240 (c50% ad)
8th "	Benghazi - P	42 (1 ad)
20th "	"	48
27th "	"	11
	Benghazi - Q	12

Date	Location	Counts
5th January 79	Tocra	240
7th "	"	280
10th "	Benghazi - P	23 (inc 2 ad)
	Benghazi - Q	160(all ad)+60(inc 2ad)
25th "	Benghazi - P	32 (all imm)
	Benghazi - Q	242 (inc 22 imm)
		21
13th February	Benghazi - P	44 (all imm)
		104 (inc 24 imm)
	Benghazi - Q	22 + 21
1st March	Benghazi - P	45
	Benghazi - M	17 (all imm)
7th "	Benghazi - I	1 imm
12th "	Benghazi - M	15 (all imm)
	Benghazi - P	23 (all imm) + 47
	Benghazi - Q	56 (inc 30 ad)
16th "	Tocra	200
18th "	Benghazi - P	58 (inc 3 ad) + 37
14th April	Benghazi - L	5 imm (inc 30 ad)
30th "	"	143 (inc 2 ad)
16th October	Wadi Kouf	15 (inc 3 ad)
23rd "	"	22 (inc 2 ad)
12th November	"	45 (inc 7 ad) + 22 (
14th "	"	29 inc 3 ad)
17th "	"	48 (inc 4 ad)

GREATER FLAMINGOS IN GREECE. by Alan Johnson

Watson (1960) and Bauer et al.(1969) both state that the flamingo is only an accidental visitor to Greece. Indeed mainland Italy and the Balkan Peninsular have long constituted a gap in the distribution of this sub-species along the northern shore of the Mediterranean, separating the western part from the eastern. For those who know Greece, however, this may be rather surprising as the country possesses several wetland areas which apparently provide suitable habitat for flamingos. The species occurs in large numbers in neighbouring Turkey and Cyprus and some birds occasionally wander east from the Camargue to Sicily, Libya and even Turkey (ringing recovery).

Recently, there has been a series of records of this species, from Thrace and Macedonia in particular, which are listed below :

07.06.78	1 juv/imm.	Evros Delta	(R. Britton, pers.com.)
05.09.80	1	Lake/Salines Alyki	(J.G.Walmsley 1980)
2-3.08.83	23 adults	L. Vistonis	(S. MacDonald et al.,pers.com.)
23.08.83	373	Evros Delta	(Brit.Birds.,1984,77:233)
30.09.84	400 ads/juvs	Lake Karakatzalis	(A.Crivelli, H.Jerrentrup, pers. com.)

This latter observation very probably constitutes the largest concentration of flamingos ever recorded in the country. Apparently 200-400 individuals have been in the region since the beginning of the year. Fifty juveniles were checked for rings (of eventual Camargue origin) but none were seen. In view of this and the fact that three of the four wetlands concerned are in the north eastern part of the country it may be presumed that these birds are of Asiatic origin.

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ON THE OCCURRENCE OF THE GREATER FLAMINGO (Phoenicopterus ruber roseus) ON THE SULTAN MARSHES (TURKEY).

Max Kasparek

The Greater Flamingo was first discovered breeding by K. Warncke on the Sultan Marshes, Central Anatolia, in spring 1970. The number of breeding pairs was estimated as 1500 (Warncke, 1971). In October of the same year two Turkish ornithologists, I. Ozer and N. Turan, unaware of Warncke's observation, also discovered the colony which they then estimated to contain about 2,000 nests (Turan, 1971). These were spread over three islands in Yay Gölü.

The richness of the bird life of the Sultan Marshes (often wrongly referred to as Kurbaga Gölü) was first brought to international attention in 1968 by the late I. Ozer. Since then, many bird-watchers have visited the area each year (Kasparek, in prep.) but none have made any mention of flamingos breeding there. In view of this, it seems clear that the colony established in 1970 was the only breeding attempt to take place at this site in the past 16 years.

The explanation for this isolated breeding attempt is not really apparent. It was first thought that because of unsuitable water levels at Tuz GölÜ (T. Gurpinar, pers. com.) the only site in Turkey where flamingos are known to breed fairly regularly, birds may have switched from there to the Sultan Marshes. However, as breeding also took place at Tuz in 1970 (Warncke, 1971) this seems unlikely.

In the course of a study of the birds of the Sultan Marshes (Kasparek, in prep.) a total of 96 records of flamingos have been collected from birdwatchers. The mean monthly values are given in Fig.1. There are no December records but relatively few visits have been made in this month. In spring, numbers peak in March and there is a striking increase in autumn with maximum numbers in October.

The maximum number recorded was by V. van den Berk and colleagues on 6-7.10.1980. These observers counted 60-80,000 but the authors themselves suggest that this may be an overestimate. However, two years later, on October 1st and 3rd 1982, the same team made a more careful count of 52,000 birds including 1,200 juvs. (V. & N. van den Berk, R. Bijlsma, F. Roder).

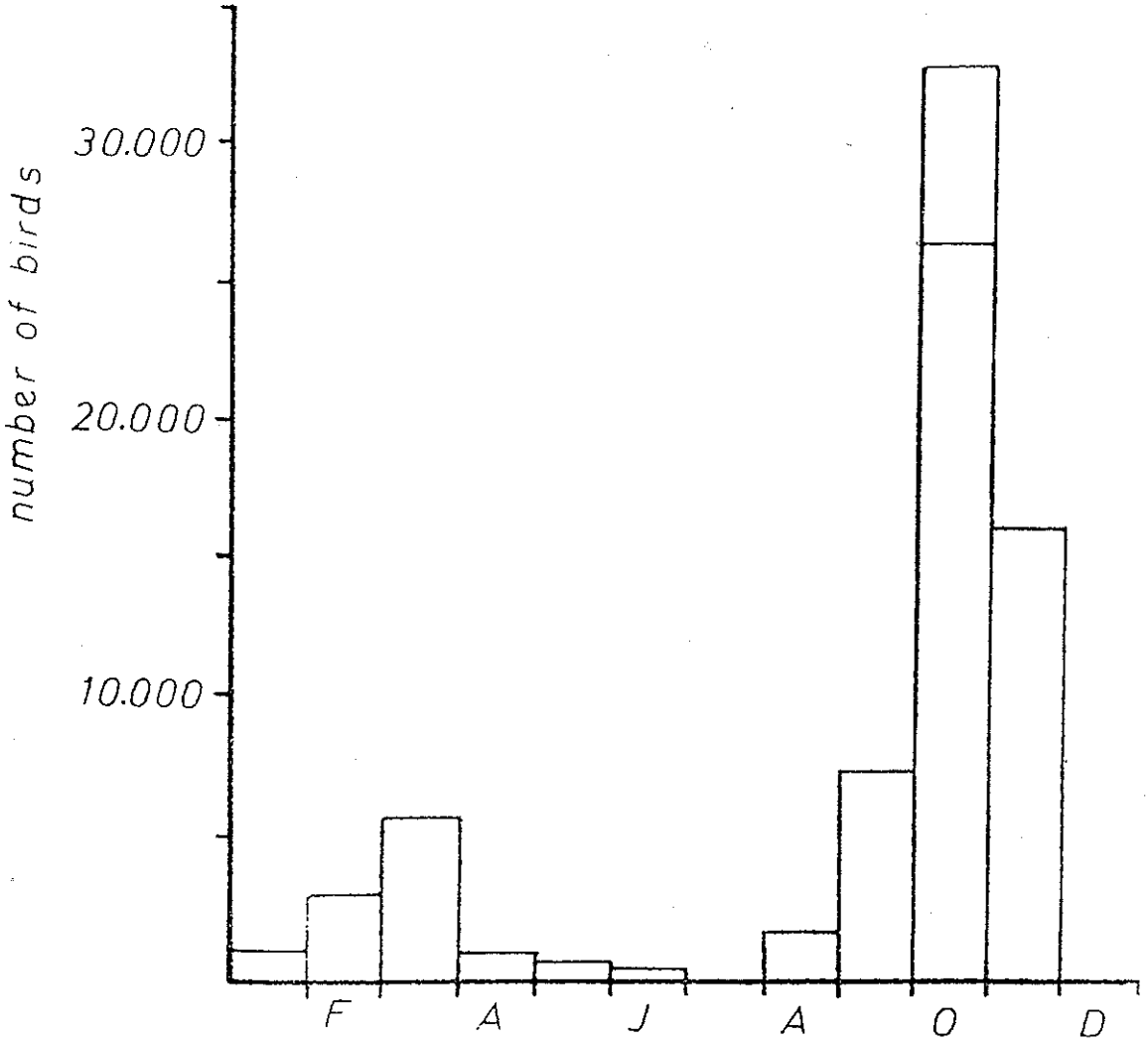

Figure 1.

Numbers of Greater Flamingos observed in the Sultan Marshes. Values are given as the monthly means of a total of 68 separate records from 1968-1982. Those from the breeding year, 1970, are not included. The October mean is expressed as a minimum and maximum, with and without the count of 60-80,000 of V. van den Berk et al..

Prior to these observations another very high figure (42,000) was obtained by T. Gürpinar in October 1975 (Gürpinar, 1978). All other records are below 23,000. Although these maximum counts may contain some errors, it is clear that the total population of Turkey, hitherto estimated as 25,000 birds (Kahl, 1975), is on occasion of the order of 40-60,000 birds. In this context, it is important to note that in winter the population may be augmented by birds of Iranian origin. A number of recoveries of ringed birds confirm that such movements do occur (Bull. Orn. Soc. Turkey, 1974, 11: 8).

During summer (May, June), the proportion of immature birds is very high, on occsion almost 100%. In the post-breeding season, juveniles of the year can frequently be seen. This was so in September 1979 and September 1982. These birds may come from the breeding grounds at Tuz GölÜ.

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FLAMINGOS IN GUJARAT (INDIA).

Prunella Palmes

The 1984 Oxford University Expedition to the Gulf of Kutch made counts of flamingos along the shores of the Gulf of Kutch Marine National Park and at saltworks along the north coast of Gujarat during February and March 1984. The survey of saltworks included visits to all the major solar evaporation plants between Jodya to the east and Okha to the west. Any other observations were made during a boat trip between Jamnagar and Okha. At the Okha Rann, the largest of the saltworks, we made a transect across the Rann from high to low salt concentration, then made a population estimate based on the total area of pans within the salinity range that the birds occupied on the transect.

Small numbers of flamingos were present at most saltworks and scattered along the coast (Table 1). The main concentration was found in the Okha Rann.

Groups of newly fledged Lesser Flamingos were found at several locations. At Kijedia reclamation dam, which was visited throughout the 6 weeks stay, a group of 31 juveniles and 4 adults was apparently resident : feeding and roosting in the shallow water behind the dam. Over the whole area visited, a total of 937 adults and 159 juveniles were seen (an adult to juvenile ratio of less than 6:1). Our population estimate for the Okha Rann would produce a further 1,000 Lessers.

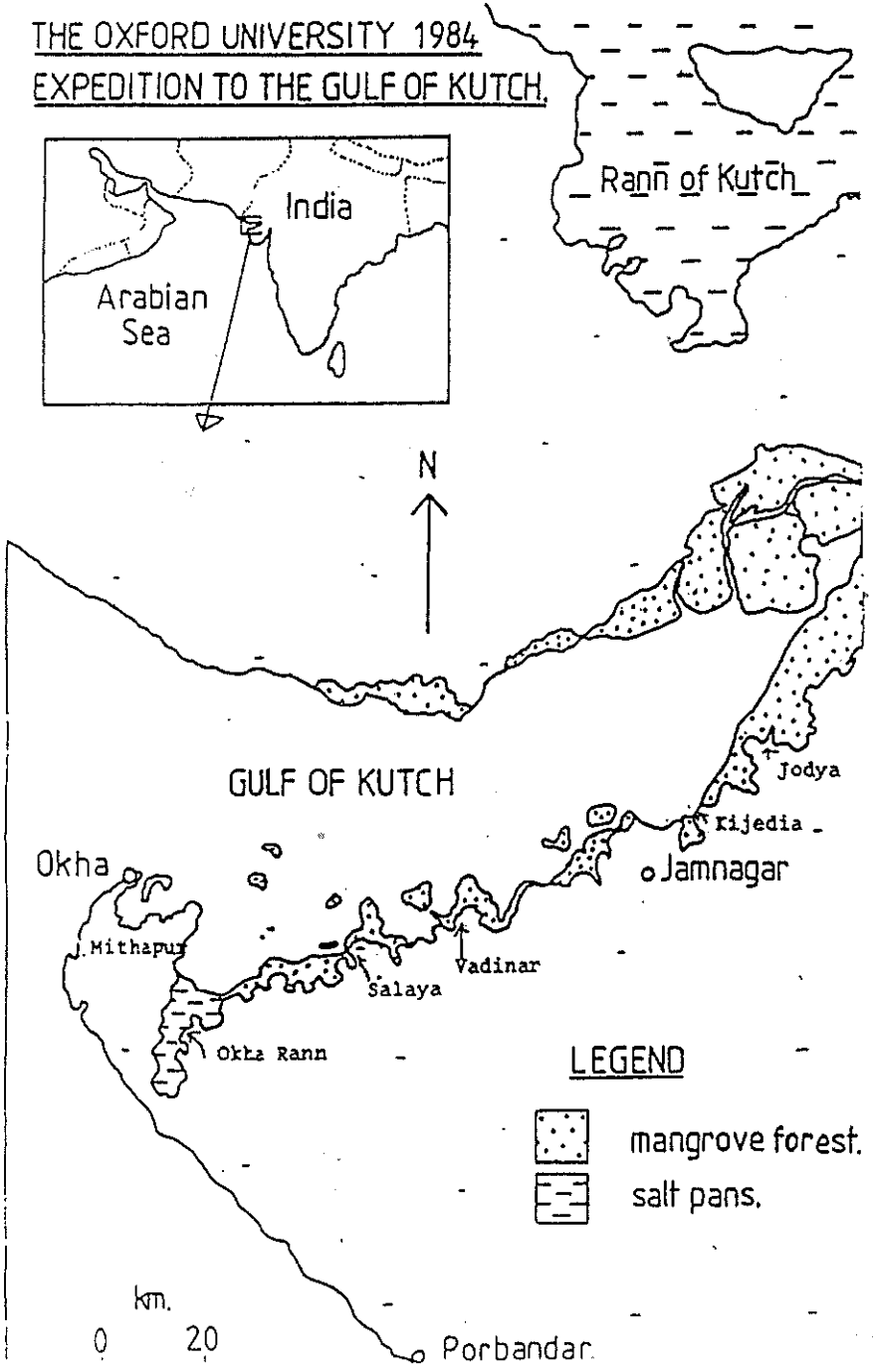
Greater Flamingos were more common, with a total of 5,720 adults and 40 juveniles seen plus a projected 13,000 birds on the Okha Rann. The adults to juvenile ratio was far higher at 143:1.

There has been no record of flamingo breeding in the Rann of Kutch for the last 2 years and an Indian air reconnaissance team were not able to locate a colony during the 1983/84 season, although the Lessers obviously bred in the vicinity. Perhaps they nested on the Pakistan side of the border.

Gujarat is a major salt producing area and the reservoirs and condensing pans provide a potentially important and seasonably reliable feeding area, well situated for the flamingos as they disperse from their breeding grounds in the Rann of Kutch. According to the managers of the saltworks, numbers usually reach a peak during December. On the smaller saltworks, the crystallising pans were adjacent to the condensing pans and it was interesting to see the flamingos feeding quite close to the large groups of manual workers harvesting the salt.

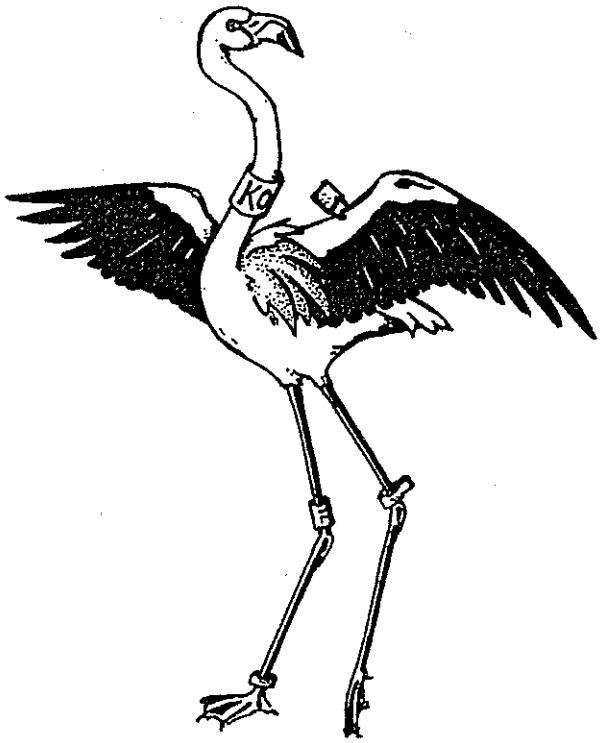
The condensing pans on the Okha Rann were far more remote and the owners, Tata Chemicals, are keen to establish a bird reserve. They would particularly like to see flamingos breeding there and would be grateful for advice on how to encourage nesting. Some nest building activity was seen there last year.

(August 1984)



FLAMINGO COUNTS FROM THE GULF OF KUTCH FEB/MAR 1984

Locality	Site	Area Ha	Date	Time	Greater Ad	Juv	Lesser Ad	Juv
Jodya	Navlakhi Saltworks	10,000	18/2	1600	230	4		
Jodya	Disused Reclaimation Dam	45km long	18/2	1300				23
Jamnagar	Kijedia Saltworks	?	19/2	1400	160	?		
Jamnagar	Kijedia Reclaimation Dam	8km long	14/2	1600	166		4	31
Jamnagar	Sanctuary Saltworks	600	17/2	1100	70	5		
Jamnagar	Halar Saltworks	1,300	16/2	1000	60	6	60	5
Vadinar	Singatch Saltworks	1,300	26/2	1100	240	6	300	20
Vadinar	Tidal mud beyond Saltworks		26/2	1400	60			
Vadinar	Vadinar Saltworks		26/2	1600	8		98	12
Salaya	Kalubar		27/2				20	22
Salaya	Perar Saltworks		28/2		45			
Salaya	Beyond Saltworks		28/2		57			
Salaya	Salaya Point Saltworks		28/2		65		35	
Salaya	Beyond Salaya Point		28/2		50		70	
	Dhana Tapu		28/2		170			
	NW of Dhana Tapu		28/2		50			
Okha	Mithapur Saltworks		4/3					
Okha	Okha Rann Saltworks (transect)	12,000 (2,000)	5/3	1200	4,350	12	350	46
	Okha Rann Saltworks (estimate for remaining 6,000ha suitable pans)				13,000		1,200	



A REVIEW OF FLAMINGO RINGING ACTIVITIES THROUGHOUT THE OLD WORLD

by

Alan Johnson

This review is a means of grouping together the ringing and marking activities which have been carried out in Africa, Europe and Asia, on both the Greater and Lesser Flamingos. Some ringing, particularly when details have not been published in international journals, must have been overlooked by the author who hopes that any gaps will be drawn to his attention. These and new activities will be published in future newsletters. Results of each scheme, when known to the author, have been summarised briefly. This has been done in order to show what the present state of our knowledge (on movements in particular) is, to throw light on the many gaps which still exist and also to advice on the best marking techniques and programmes in an attempt to coordinate colour-ringing schemes in order to avoid any duplicating.

LESSER FLAMINGO.

Southern Africa (INFORM ZOO PRETORIA) monel butt-jointed rings

Etosha Pan : 1000-1500 pulli of greaters and Lessers, june 1969. Dixon & Ebedes. (Berry 1972, Morant pers. com.). March 1972 : 12 1st.yr. ; July 1974: 2 pulli (Berry and associates).
Sandwich Harbour : April 1972: 1 1st.yr.

Recoveries: Two birds from Etosha recovered on the Atlantic coast (Walvis Bay, Möwe Bay).

Asia, India (BOMBAY NATURAL HISTORY SOCIETY)

Point Calimere (Tamilnadu) : 1980-1982 2 (Ali & Hussain 1982).
Chilka Lake (Orissa) : Feb.-March 1981 : 7 (Ali & Hussain 1981).

Recoveries : ?

East Africa (BRITISH MUSEUM) monel clip rings on tibia.

Lake Magadi (Kenya) : 8,000 Oct.-Nov. 1962

Recoveries/sightings: 11 only by 1969, mainly Kenya but one in Ethiopia (c. 1,100 km. N.) (Brown and Root 1971).

GREATER FLAMINGO

Southern Africa (INFORM ZOO PRETORIA) monel butt-joined rings.

Bredasdorp District : 48 pulli Feb. 1961 (Uys & Martin 1961).
Etosha Pan : 1500 pulli of Greaters and Lessers, June 1969. Dixon & Ebedes, (Berry 1972, Morant pers. com.).
60 (probably Greaters) Aug./Sept. 1963. Winterbottom (in Berry 1972, P.D.Morant pers.com.)
50 pulli July 1974 and 5 juvs Jan 1975 Berry and associates (P.D.Morant, pers.com.).
Walvis Bay : 1 in Jan. 1970 (Berry and associates, P.D.Morant, pers.com.).
Sandwich Harbour : 1 in Feb. 1970 and 1 1st.yr. in April 1972.

Recoveries : 2 on record : one of 200 km (Transvaal, O.F.State) and another of 500 km (from Bredasdorp Dist. to Bushmanland. (P.D.Morant pers.com.).

West Africa.

Senegal (Delta du Saloum) : 7 pulli marked (OIS MUSEUM PARIS rings) in April 1976.
20 pulli marked with Senegalese rings (aluminium orange) in Feb. 1979. A.R.Dupuy, National Parks Service.

West Mediterranean.

Spain (Laguna de Fuentepiedra) : (MUSEO CIENCIAS, MINIST.AGRIC, MADRID 6, SPAIN). 9 pulli in 1964 (Bernis & Fernandez-Cruz 1965) and 45 pulli in August 1969 (Fernandez-Cruz 1970).
(UNIV. MALAGA ZOOLOGIA) 50 pulli marked with aluminium clip rings placed on tibie, July 1977 (Blasco et al 1979).

Recoveries : 1 Madrid ring in Mauritania and several sightings of Malaga rings in France

France (Camargue) : (OIS. MUSEUM PARIS) All ringed as pulli. 1947: 8, 1950: 500, 1952: 248, 1953: 766, 1954: 484, 1956: 366, 1957: 1881, 1959: 585, 1960: 1339, 1961: 240. Wing tags were used in 1950 and 1952, aluminium clip rings in 1947, 1953-1959 and butt-jointed rings in 1960, 1961; all rings being placed on the tibia. Ringing operations took place in May (1950), June (1952) or in July/August (all other years).
Plastic leg-bands only have been used since 1977. These are all either yellow or white, engraved with a 3-digit combination of letters and/or numbers (in black) repeated 3 times around the ring. A narrow strip of coloured tape (red, green or blue) has been stuck vertically between the codes to identify the year (1979-1983). All rings have been placed on the right tibia and are legible in the field. The numbers of ringed birds were in 1977: 577, 1978: 650, 1979: 651, 1980: 697, 1982: 652, 1983: 720, 1984: 781. The number of chicks marked has varied between 7% and 30% of the total of birds in the crèche according to the year.

Recoveries/sightings : 484 recoveries of metal rings from the West Mediterranean (477), West Africa (4), Lybia (2) and Turkey (1). Longevity records up to 27 years. 22,000 sightings/recoveries of the plastic rings in area described above (except Turkey).

Asia.

Iran (Lake Rezaiyeh/Urmia) : (DEPT OF THE ENVIRONMENT, TEHRAN). Both pulli and moulting adults have been marked : Aug. 1970: 2250 pulli with blue neck collars and 242 ads. with monel leg rings.
Leg rings afterwards used in 1971 (1000), 1972(1495) 1973 (1499), 1974 (1450) (Argyle 1975), 1975 (984 pulli, 143 ads.) (Argyle 1976) and 1980-81 (2500) (J.Niyat per IWRB). In 1983 100 ads. were marked with yellow neck bands (J.Mansoori pers. com.).
Recoveries : 2 neck collars and over 90 rings from a very extensive area, north-east to the Caspian, south-east to eastern India, south to Ethiopia and west to Turkey and Lybia (Argyle 1975,1976).

U.S.S.R. (MOSKVA rings placed mostly on tarsus). Caspian East coast : 604 ringed between 1935 and 1970, 10 between 1971-1981 (E.I. Gavrilov pers.com.).
Tengiz Lake, Kazakhstan: Both pulli and moulting adults have been marked: 1967 (21 ads.), 1968 (121 ads.), 1969 (111 ads.), 1970 (198 ads. + 271 pulli), 1971 (485), 1974 (2 ads.), 1975 (12ads.), 1976 (40 ads. + 10 pulli), 1977 (144 ads. + 179 pulli), 1978 (901 ads. + 1867 pulli), 1979 (871 ads. + 2442 pulli), 1980 (1025 ads. + 3340 pulli). (E.I. Gavrilov pers.com., Gavrilov 1980).
(some neck collars were used in 1978 (black) since one was sighted recently in Tunisia pp.)

Recoveries : over 90 from USSR, Iran, Iraq, Cyprus, Egypt, Tunisia and Pakistan (E.I. Gavrilov, pers. com.).

India (BOMBAY NAT. HIST. SOCIETY) (Rann of Kutch) : 192 pulli ringed in April 1945, duck rings on left tibia (Ali 1945).
Point Calimere (Tamilnadu) : 26 in June 1980-July 1981 (Ali & Hussain 1982).
Chilka Lake (Orissa): 1 in Feb.-March 1981 (Ali & Hussain 1981).

DISCUSSION.

The vast majority of flamingos of both species have been captured as pulli. Quite large numbers of Greaters have, however, been caught as they undergo their simultaneous moult, in particular on Lakes Rezaiyeh (Iran) and Tengiz (Kazakhstan). These adults and the chicks were caught mostly in a pen or were chased. Other methods of capture used in Russia have included single-shelf mist-nets, dazzling at night from a boat and pursuit by motor boat.

Results obtained by ringing vary greatly from one region to another. They can be summarised as follows but may need modifying if any important data have been overlooked.

Lesser Flamingos have been ringed in large numbers only on Lake Magadi (Kenya) and Etosha Pan (Namibia). Recoveries are few and shed little light on movements and longevity.

Greater Flamingo : Three areas have seen similarly large numbers of this species ringed : Lake Tengiz, Kazakhstan (12,000), Lake Rezaiyeh, Iran (11,600) and Camargue, France (11,900). Good numbers of recoveries have been forthcoming and the main areas within which birds disperse from these three colonies seem quite well defined, particularly for birds of Camargue origin. There is overlap of these areas with some Camargue birds going east to Libya and Turkey where they meet up on occasion with flamingos of Iranian and Russian origin. Likewise some birds from Tengiz travel south west occasionally as far as Tunisia where they come into contact with birds of Camargue origin. This overlapping of dispersal zones would undoubtedly be even more evident if ringing would be carried out in those colonies which lie between the presently studied sites (Tunisia, Sinai, Turkey). None of the different populations of this species would therefore seem to be an isolated unit althouh there is no record as yet of Greaters moving between the northern and southern parts of Africa. It is the Camargue-ringed birds which have provided most data on longevity with one recovery after 27 years.

SOME NOTEWORTHY RECOVERIES - SIGHTINGS.

One of the regular features in this newsletter will be a selective list of recoveries and sightings of flamingos; birds which have travelled long distances in a short time (short lapse of time between ringing and recovery or between sightings), dispersed to regions where mouvements were formerly unknown or poorly documented, longevity records, etc... The greatest life span on record is for the Greater Flamingos of the Basel Zoo (Switzerland), 8 individuals being aged at least 44 yrs (in 1982). In the wild the longest time on record during which a bird has carried a ring is 27 years. Although only a small fraction of birds ever reach such an age it must be pointed out that it is not at all uncommon to see birds in the Western Mediterranean wearing metal rings of Camargue origin, 23 years after this type of ring was last used.

The longest distance undertaken by Greater Flamingos so far on record is of the order of 4,000-4,500 km : from the Camargue (France) to Senegal and from Lake Rezaiyeh (Iran) to eastern India. Two birds recently reported from Tunisia (see below) and ringed in Kazakhstan (USSR) have not not only travelled a great distance (4,800 km) but provide evidence of an exchange of birds between Asia and the Western Mediterranean basin (there was a recovery in Adana (Turkey) in 1957 of a flamingo ringed in the Camargue in 1954).

Ring	Date	age	locality
MOSKWA B 133831	16.07.1978	juv.	Lake Tengiz (Kazakhstan) USSR 50°24'N 68°57'E.
found dead (leg only)	March/April 1983		Salines de Thyna (Sfax) Tunisia 34°40'N 10°45'E.
Neck collar K 001	11.08.1980	ad.	Lake Tengiz (Kazakhstan)
read in field	11.02.1984		Sidi Mansour (Sfax) Tunisia 34°48'N 10°52'E.

SOME RECENT LITERATURE CONCERNING FLAMINGOS.

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ANNOUNCEMENTS.

F.W.G. Documents.

Newsletters. Anyone interested in obtaining Newsletter N°1 (English or French version) should contact the Co-ordinator. It is hoped that N°3 will appear in summer/autumn 1985. Please send any items of interest and articles.

Special Reports. The FWG will, as the need arises, produce special reports on subjects concerning flamingos but which are not necessarily of interest to all members. They will be announced in the newsletter and issued to members of the World Working Group. Other persons may obtain them on request when it may be necessary to make a charge to cover stationary and postage. The first of these reports appeared in October 1981 and is an Index of Diseases affecting the Phoenicopteriformes, this bibliography of 100 references being compiled by Dr. P.E. Rollin from whom it is available on request (free of charge, Institut Pasteur, 25 rue du Dr. Roux, 75015 Paris, France).

World Symposium on Flamingos !

The first International Flamingo Symposium was held at the headquarters of the Wildfowl Trust in Slimbridge, England, in July 1973. It was attended by over 60 specialists on flamingos and persons interested in this group of birds and the papers presented at this meeting later formed the chapters of a book : "Flamingos", Janet Kear and Nicole Duplaix-Hall Eds. (Poyser, Berkhamsted, 1975). At the closing of the symposium, it was suggested that the group should aim to hold another one five years later. This was more than ten years ago. Several members have recently suggested that the time is ripe for another symposium. Before any decisions on this are taken, however, the co-ordinators would like to know how many people would be interested in attending a workshop and presenting a paper. Perhaps the best place to hold one would be in the Camargue in spring 1986. If you are interested please let the co-ordinator have your views on this.