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## Locusts, other migratory pests and emergency operations group

# DESERT LOCUST SITUATION SUMMARY AND FORECAST

No. 114 FEBRUARY-EARLY MARCH 1988

### SUMMARY

Following the unprecedentedly widespread gregarious breeding in northern Mauritania, Western Sahara and southern Morocco numerous swarms formed during February and moved north and north-east into south-east Morocco and across northern-central Algeria into Tunisia and north-west Libya. Following widespread and abundant rainfall the swarms matured rapidly and laid in many areas.

Large scale control campaigns were organised in all areas but even larger campaigns will be necessary in the recently invaded areas to prevent further swarm formation in late May.

Considerable numbers of adults were blown out into the Mediterranean in mid-March and into the Atlantic off the Western Sahara and north-west Mauritania in late March.

Elsewhere there was small scale gregarious breeding in north-eastern Sudan. Small numbers of adults were seen in Niger and Saudi Arabia.

W/S7148

WEST AFRICA

Meteorology

The Intertropical Convergence Zone lay to the north of its normal mean position during February, reaching 12° N. To the north there was bad visibility on many days. Light rain or traces of rain were recorded on several days in northern Mauritania during February. There was significant rain in northern Mauritania during the first decade of March. On 25 March there was dense sand in suspension off the coast of Mauritania, reducing visibility to less than one kilometre.

Breeding conditions

The vegetation was drying out in southern Tiris-Zemmour in northern Mauritania during February, but at the end of the month it was still green in the Bir Moghrein area. The vegetation continued to desiccate during March.

Locusts

MAURITANIA

By early February hopper and adult infestations extended from Choum (2118N/1259W) to Garat Djebilet (2650N/0745W) with the heaviest infestations being between Zouerate and Bir Moghrein. It was estimated that there were 300,000 hectares of infestations which needed immediate treatment and that in all some 1,000,000 hectares were infested. By 10 February some 80-90% of the population has fledged in southern areas, but less further north.

A very dense flying swarm was seen at Touajil (2215N/1250W) on 2 February; a dense swarm was seen flying south-east near Char (2130N/1252W) on 12 February; several swarms were seen moving north-east and north-west on 14 February, another moving north-west on 17 February and a 54 sq.km swarm was reported settled south-east of Tourassine on 18 February. On 25 February a very dense swarm was seen flying east at Tourassine; on the following a 300 sq. km swarm was seen east to the south-east of Tourassine and on 27 February another large immature swarm was seen at Tourassine.

Further swarm formation continued in early March, when some 90-95% of the population had fledged. Most hoppers were in the fifth instar but some further hatching was also recorded. By mid-March there were still pockets of late instar hoppers around Tourassine and hoppers at densities of 30-50 per sq. metre and adults at densities of 3-5 per sq. metre over an area of 5,000 hectares north-east of Bir Moghrein, but over most of the area only isolated adults were present.

On 18-19 March an immature swarm was seen at Nouadhibou and on 23 March another swarm was reported from 140 km north-east of Nouadhibou.

During February 92,152 ha were treated by air with 6,110 litres Fenitrothion 96% ULV and 33,900 litres of Fenitrothion 50 ULV, and 57,323

ha were treated by ground teams using 8,210 litres of Fenitrothion 96% ULV, 13,500 litres of Fenitrothion 50 ULV and 38,150 kg of poison bait. By 8 March, virtually, the end of the campaign, 245,322 hectares had been treated.

#### ATLANTIC OCEAN

On 25 March a ship reported groups of mainly pink locusts, but some grey and yellow, at position 2052N 1758W at 0900 hours GMT. Surface wind easterly 9 knots, by day-break on the following day most locusts had left the ship (1235N/1750W); a second ship reported isolated flying locusts between 2231N., 1850W at 1600 hours GMT on 25 March to 1846N., 2030W at 0800 hours on 26 March, surface wind ENE 15 knots; a third reported yellow locusts at 0820N., 2700W at 1100 hours on 26 March.

#### SENEGAL

On 23 March 2 pink locusts were found at Dakar at 0700 hours.

#### NIGER

Isolated adults seen in Aïr and at Arlit and Tchintoulous (1835N/0848E).

### NORTH-WEST AFRICA

#### Meteorology

There were good rains over much of Morocco during February but rainfall generally decreased eastwards. There was rain in northern Western Sahara in mid February and torrential rain in Tamanrasset in early March.

#### Breeding conditions

Breeding conditions were generally very favourable immediately to the south of the Atlas mountains, but were becoming less good in Western Sahara.

#### Locusts

##### MOROCCO

Breeding continued in the Guelmim and Tata areas during February as a result of laying by old generation adults but there was more widespread breeding by new generation adults as they moved eastwards during March, reaching the Bouarfa area. These consisted of swarms of up to 60 sq. km in extent, which remained to the south of the mountains. An intensive campaign was launched against the new generation swarms and by 23 March it was stated that 640,000 hectares had been treated in Morocco and Western Sahara. 35 aircraft, 350 vehicles and 1,500 personnel were involved in the campaign, which was treating up to 35,000 ha each day.

#### WESTERN SAHARA

Breeding continued in the Laayoune and Dakhla areas throughout February but was on a diminishing scale in March, as breeding conditions became less favourable. From 17 February swarms were reported from many localities extending from Tichla in the south to Mahbes in the north.

#### ALGERIA

As reported in summary No. 113 there was breeding in the Tindouf area during February and by the end of the month about 25,000 hectares had been treated.

New generation adults appeared in the Tindouf area from 15 February and several maturing swarms were reported from the area from 21 to 26 February. To the east scattered mature adults were seen in the Adrar, Aoulef, Timimoum, Beni Abbas, Tabalbala and El Abiodh-Sidi-Cheikh areas. One small swarm settled near Timimoum on the night of 16-17 February. In early March swarms moved rapidly east-north-east across the country to the south of the Atlas Saharien, and matured and were laying in many areas in late March. In mid-March small populations were reported in the Illizi area (2630N/0830E).

A large scale control campaign was launched using 35 aircraft and 80 vehicles and by 25 March 270,000 hectares had been treated.

#### TUNISIA

Swarms started to reach the southern part of the country on 8 March from the west. Control started immediately. On 14-15 March swarms reached the Gafsa area and by 18 March they had reached the sea between Sfax and Gabes. On 21 March swarms entered Tunisia near Kasserine and by the next day, locusts had reached El Kef, Kairouan and Sousse. By 22 March 32,000 ha of swarms had been treated. 17 aircraft were being used.

#### LIBYA

A swarm was reported from the Derj (3010N/1027E) area on 8 March. On 14 March several small swarms were reported from the Hamda el Hamra area and on 18 March a swarm reached Tripoli from the north. On 22 March the situation was reported to be under control.

#### MEDITERRANEAN

On 18 March locusts were seen 70 km off the Tunisian coast and a ship reported locusts appearing on board between positions 3412N., 1624E and 3338N., 1651E between 0200 and 0500 hours GMT. The surface wind was WNW 30 knots.

## EASTERN AFRICA

### Meteorology

Meteosat imagery indicated that there was some light rain over southern Eritrea, Tigray, and Djibouti in February. No significant rainfall was reported from Sudan.

### Breeding Conditions

Conditions continued to be favorable for breeding on the northern Red Sea coast of Sudan, especially in the sub-coastal areas of Wadi Oko/Wadi Di-ib.

### Locusts

#### SUDAN

Small scale breeding was reported in subcoastal areas of the northern Red Sea coast throughout February and early March.

On 6-7 February copulating adults and fledglings at densities of 900-1200 per hectare were reported from Wadi Oko and Wadi Di-ib. 700 ha were treated with Diazinon EC and Fenitrothion adult groups at densities of 6,000-11,000 per hectare and small fourth to fifth instar bands were seen. On 21 February, medium density first to third instar bands covered 300 hectares in Wadi Di-ib at Khor Mafdeib (2122N/3605E) and 600 hectares at Jebel Karaiaweb (2132N/3605E) on 23 February. Copulating adults at density of 3,000 per hectre were seen. Control measures were carried out on 250 ha. Mixed hopper bands were also reported from Khor Adarem (2029N/3550E). On 28 February, medium density small first to third instar bands were seen over 80 ha between Khor Shendib (2151N/3606E) and Jebel Haragineb (2148N/3606E). Copulating adults at density of 5,000 per hectare were also seen.

Breeding and hatching continued into March. On 3 March 250 ha at Khor Mafdeib were infested with medium-sized first to third instar bands of medium density and scattered immature and mature adults. On 4 March medium first to fourth instar bands of medium density were scattered over 700 ha at Jebel Karaiaweb and on 6 March over 250 ha at Jebel Hargineb. Adults were also present. On 8 March, medium density first to third instar bands were seen over 300 ha at Khor Adarem. On 14 March medium density third to fifth instar hoppers were controlled over 250 ha in the Sufia area (2140N/3609E) and around Jebel Hargineb.

Further south in Wadi Oko, Gabatit (2029N/3550E) reported mixed hopper bands by the end of February and Garamait (2022N/3551E) reported dense third to fifth instar bands over 1200-1400 hectares on 8 March. By 15 March the hoppers were in the fourth-fifth instars and were present over 660 hectares.

Ground control operations using Diazinon EC, Fenitrothion ULV, and poison bait were in progress in all infested areas.

Near the Egyptian border, scattered laying adults and first instar hoppers were seen on 24-25 February in areas along 35 km of Wadi Di-ib from Bir Meheriga (2212N/3556E) to Wadi Gunedliem (2219N/3556E).

Scattered locusts were reported from Khor Gub (1859N/3618E) in early February and control was carried out over 180 hectares in the Musmar area, also in early February.

No desert locusts were reported from elsewhere in Sudan.

ETHIOPIA, DJIBOUTI, and SOMALIA remained clear until mid-March.

#### NEAR EAST

##### Meteorology

In mid-February, rainfall was received in Jizzan, Riyadh, Medina, Jawf, and Hail. Northern Tihama received 35.7 mm on 17 February and 16 mm on 23 February. The Hijaz, Asir, Sulaiyil, and the Rub al Khali also received some rain. Light rain was reported in Kuwait and Oman in January. Heavy rain fell on five days in the United Arab Emirates.

##### Breeding conditions

As a result of heavy rains in January and February, conditions continued to be favorable for breeding on the Qunfidah and Jizan Tihamas and on the Yemen Tihama.

##### EGYPT

Egyptian ground units were controlling mixed hopper and adult infestations in the border areas with Sudan.

##### Locusts

##### YEMEN ARAB REPUBLIC

Three solitarious adults were seen in Wadi Hayran on 10 February.

##### KINGDOM OF SAUDI ARABIA

Isolated adults were seen on the Lith Tihama, at Jeddah and Masturah.

KUWAIT and OMAN were reported clear in January. YEMEN PDR was clear in February.

SOUTH-WEST ASIA

Meteorology

Light rain was reported from Panjgur on 12 February and from Kharan and Pasni on 13 February. Further light rains were reported from Pasni on 15 and 17 February, from Uthal, Quetta, and Pasni on 18 February, from Nushki on 25 February, from Kharan on 27 February, and from Sukkur on 28 February. Light rainfall occurred in some areas northern areas of West Rajasthan in India. Light to medium rainfall was reported at Mushki on 2 and 3 March, in Quetta on 4-6 March, on 7 March in Bahawalpur, on 8 March in Bahawalpur and Nushki, Kharan on the 10th and in Quetta on 10-12 March.

Breeding Conditions

Despite the rainfall, ecological conditions continue to remain unfavorable for breeding.

Locusts

No locusts were reported from the region during February. PAKISTAN and INDIA were clear during the first fortnight of March.

**FORECAST FOR APRIL-MAY 1988**

Swarms may reach coastal areas in Algeria and northern Tunisia. There will be widespread breeding in north-central and northern Algeria, Tunisia and in north-west Libya. Numerous swarms are likely to form towards the end of the forecast period unless control measures in progress are highly effective and these are likely to start moving southwards across the Sahara.

In North-West Africa some of the present generation of swarms may reach the Mediterranean coastal regions of Algeria and Tunisia in early April. There will be widespread breeding in north-central and northern Algeria, Tunisia and in north-west Libya. Unless control against the swarms and the following hopper infestations is highly effective numerous swarms will form in the second half of May and start to move southwards.

Some adults possibly including groups and even small swarms may reach southern Europe, in particular Sardinia, Sicily and southern Italy in early April, or again at the end of the forecast period.

In Western Africa breeding will terminate in northern Mauritania in early April. The remaining adults may move north-east or, more likely, south-west towards southern Mauritania. Small numbers of adults will be present in Niger and Mali.

In Eastern Africa breeding will terminate in the Red Sea Province of Sudan. Adults are likely to appear in increasing numbers in the interior of Sudan.

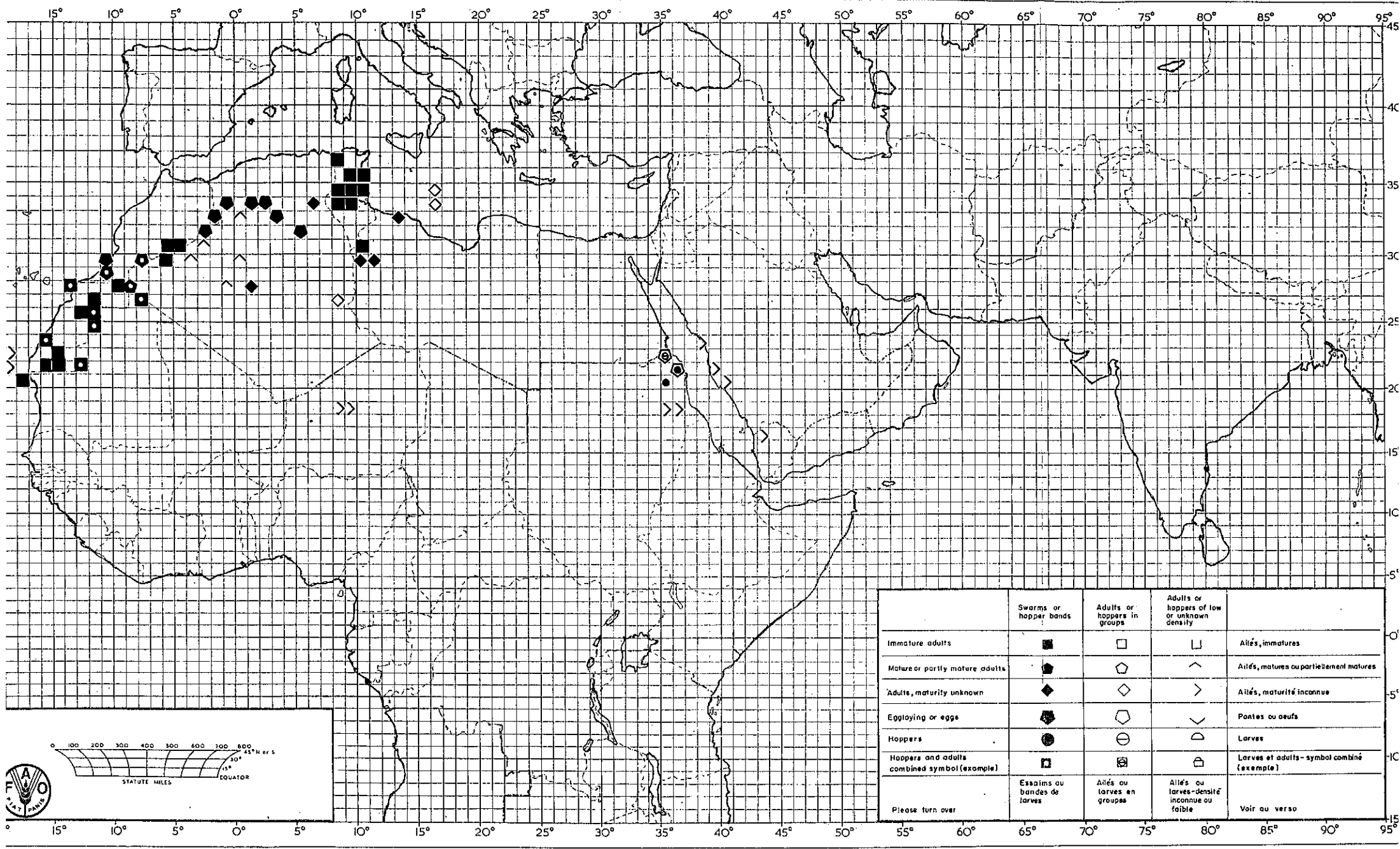
In the Near East, breeding will formate in the South-Eastern Desert of Egypt. Small numbers of adults may move into the interior of Saudi Arabia.

In SOUTH-WEST ASIA the situation will remain calm.

Rome  
27 March 1988



# Desert Locust Situation Summary No. 114 FEBRUARY-EARLY MARCH / FEVRIER-DEBUT DE MARS 198



	Swarms or hopper bands	Adults or hoppers in groups	Adults or hoppers of low or unknown density	
Immature adults	■	□	◻	Aliés, immatures
Mature or partly mature adults	●	◐	∧	Aliés, matures ou partiellement matures
Adults, maturity unknown	◆	◇	>	Aliés, maturité inconnue
Egg laying or eggs	⬢	◑	∨	Pontes ou oeufs
Hoppers	⊙	⊖	∩	Larves
Hoppers and adults combined symbol (example)	⊙■	⊖◐	∩◻	Larves et adults - symbol combiné (exemple)
Please turn over	Essaims ou bandes de larves	Aliés ou larves en groupes	Aliés ou larves - densité inconnue ou faible	Voir au verso

