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DESERT LOCUST SITUATION SUMMARY AND FORECAST

NO. 87 NOVEMBER - EARLY DECEMBER 1985

SUMMARY

A rapidly evolving upsurge in Mauritania and western Mali resulted in the production of hopper bands and some small swarms, the first reported for two years. Gregarious breeding has commenced on the Tihama of Saudi Arabia and is likely to become more widespread. Elsewhere small numbers of adults were reported from India.

WEST AFRICA

Meteorology

The Intertropical Front (FIT) moved south during November and reached 10°N by the end of November. In spite of the predominating influence of harmattan and its persistent flow of dry air from the north-east, some Atlantic disturbances crossed Mauritania from west to east, giving some scattered light rain, confirmed by OCLALAV at Aioun el Atrouss, Rosso and north-east of Boutilimit on 29 November. Thunderstorms associated with instability were reported from Gulf of Guinea coastal areas.

Maximum temperatures in the interior were generally in the range 33°-38°C and 25° to 30°C in coastal areas.

Breeding conditions

In Mauritania the vegetation had dried out in most areas but conditions were still locally suitable for breeding in depressions south-west of Adrar and the Aouker of Boutilimit.

In Mali some green vegetation persisted in some wadis in the Adrar des Iforas, Tamesna and Timetrine. In Niger also there were patches of green vegetation in Tamesna and Air.

Locusts

MAURITANIA

An important seasonal upsurge developed very rapidly during October.

As reported in Summary No. 86, there were mature Desert Locusts at densities of 20-100 per hectare and some first and second instar hoppers around Lake R'Kiz. Between 10 and 15 October densities increased very rapidly around Lake R'Kiz, in the Tekane area (1635N/1522W) and Keur Messene (1634N/1614W), reaching 50 000-100 000 per hectare of immature adults. This followed the establishment of the harmattan. There were also hoppers of all instars with black markings at densities of up to 30-40 per square metre. Further north there were fourth and fifth instar hoppers in groups and bands at Inderbegue (1659N/1515W). Traces of the passage of a swarm (frass, immature adults on Acacia) were seen on 27 October 5 kilometres south of the lake and extended for 20-25 kilometres. Up to 31 October 12 090 hectares had been treated with 7 200 litres of 50% Fenitrothion and 16% BHC.

During the first two decades of November very dense populations were found 20-40 kilometres from the lake, particularly to the south, east and north. More than 80% of the population was adult and hoppers at densities of 20 000-50 000 per hectare were present in inter-dune depressions and on dune slopes where Heliotropium and Colocynthis alternated with Sesamum.

The young adults dispersed as the vegetation dried out and concentrated in remaining green areas. Some adults reached the river Senegal where densities of 50-100 per hectare were observed at Keur Massene over an area of 11 500 hectares. 15 830 hectares were treated around the Lake and by the end of November densities of adults had decreased to 1 000-3 000 per hectare.

Another heavily infested area was found north-west of Boutilimit which received 90 mm of rain on 1 September. On 18 November hopper bands mixed with young adults were reported from Chachouat Brou Kafe (1802N/1452W) in an area of abundant Farsetia, Heliotropium and Malcolmia. Hatching was also seen in the same area on 15-16 November. From 20 November ground teams found large areas of green vegetation with hoppers of all instars, but mainly fifths, at densities of 50-250 per square metre mixed with immature adults making short flights. The total area infested was 60 000 hectares between 1849N and 1811N and between 1430W and 1502W, of which 20 000-25 000 hectares needed to be treated. On 3 November a driver saw a swarm settled 100 kilometres from Nouakchott on the route to Boutilimit. Between 24 and 30 November 3 165 hectares had been treated with 1 400 l Fenitrothion 50% and Dieldrin 5% and 305 Kg of Sumicombi powder.

In late November and early December the areas around Lake R'Kiz and Boutilimit were progressively abandoned as diffuse groups and isolated adults moved west and south-west on strong north-easterly winds. Swarms were seen at Nouakil (1830N/1432W) on 30 November, Tignent (1714N/1432W) on 1 December, Tenadji (1752N/1508W) on 9 December and Nouakchott on 11 December. Between 18°N and the Senegal river and 14° to 16°W adults were present at densities of up to 100 per hectare.

In all 27 170 hectares had been treated around Lake R'Kiz and 6 824 ha north-west of Boutilimit.

Further east young adults were reported 20 kilometres from Aioun el Atrouss on 26 November and young adults were found in a swampy area of 30 square kilometres at Djelimayel (1326N/1037W).

MALI

During October mature and immature adults were present at densities of 5-200 per hectare in the Bouressa basin and in the central Adrar des Iforas. Third to fifth instar hoppers were seen in the following wadis: Ouzein (1903N/0146E) density 2 000 per hectare over 150 hectares; Tin Biden (1903N/0205E) density 1 000 per hectare over 1 000 hectares and Agaba (1853N/0250E) density 100-500 per hectare over 50 hectares.

In November second to fourth instar mainly green hoppers at densities of 1-50 per hectare mixed with mature and immature adults at densities of 2-300 per hectare were found in several wadis in the Adrar des Iforas, Tamesna and Timetrine. The areas infested ranged from 10 to 250 hectares but in three wadis Marcouba (1840N/0048E), Ibdeken (1840N/0101E) and Tin Essako (1753N/0255E) the infested areas ranged from 650 to 1 500 hectares and densities from 5 to 500 per hectare.

NIGER

Third to fifth instar hoppers at densities of less than one per hectare and mature adults at densities of 5-6 per hectare were seen over an area of 30 hectares at Alalaka (1807N/0530E) where the soil was moist at 7 cm.

In Air fifth instar hoppers at densities of 50-100 per hectare over 400 hectares and immature adults at densities of 300-350 per hectare over 200 hectares were found at Agaliok (1845N/0745E). Mature adults at densities of 150-200 per hectare were found at the same station where the soil was moist at 6 cm.

NORTH-WEST AFRICA**Meteorology**

Several Atlantic disturbances crossed the Maghreb from west to east and several examples of cyclogenesis and frontogenesis were observed over the western Mediterranean. The progression of rains associated with them which extended to the Sahara could be followed on Meteosat infra-red imagery. GTS data included the following rainfall: 14 mm on 13 November at Bechar, 19 mm on 14 November at Ouazazata, a further 8 mm on 15 November at Bechar, while on 16 November light rain was reported from El Golea and Adrar during the eastward passage of disturbances. On 17 November their reactivation gave 4 mm at Timimoun, 5 mm at El Golea, 6 mm at Bechar, 11 mm at Djelfa and 12 mm at Midelt. On 18 November Algiers recorded 47 mm, confirming the above-mentioned cyclonic activity. On 20 November rain was reported around In Amenas. On 25 November Benina and Agedabia reported 2 and 5 mm respectively while further rain affected northern parts of Morocco, Algeria and Tunisia.

Maximum temperatures varied considerably according to the wind-flow. In the interior temperatures fluctuated between 25° and 35°C, particularly in the southern Sahara, while in coastal regions they ranged from 12° to 17°C behind cold fronts and between 20° and 25°C in warm sectors.

Breeding conditions

Conditions will have been favourable locally for breeding in parts of the northern Sahara which received autumn rainfall.

Locusts

No locusts were reported from the Region.

EASTERN AFRICAMeteorology

Meteosat imagery indicated there were many days in November when rain could have fallen on the Red Sea coast of Sudan and northern Ethiopia but the Gulf of Aden coasts of northern Somalia were dry. There were thunderstorms associated with the Red Sea Convergence Zone (RSCZ) and Port Sudan recorded 3 mm on 30 November. The interior of northern and central Sudan was dry, maximum temperatures in Khartoum being around 35°C. In Ethiopia there were thermo-convective rains over the highlands. In Somalia there were several thunderstorms of Indian Ocean origin particularly from 6 to 10 November according to Meteosat imagery but they were not confirmed by group 6 in the GTS synop message even though rain was reported in the "present" and "past" groups and their interpretation was hindered by lack of Insat imagery.

Breeding conditions

No NOAA/AVHRR imagery is available but it is probable that conditions were locally favourable for breeding in the southern sector of the Red Sea coast of Sudan and along the northern coastal plains of Ethiopia.

Locusts

No locusts were reported during the first decade of November.

NEAR EASTMeteorology

The Arabian peninsula was affected by rains of very variable origins. Firstly, certain Mediterranean disturbances were reactivated by contact with this heat source. Secondly, local instability with thunderstorms was clearly seen on Meteosat imagery. Thirdly, the Red Sea Convergence Zone (RSCZ) was much more active than in previous months, its position fluctuating between 15° and 25° N depending on the disturbances mentioned above. After generally light rain in the first half of November there was widespread heavy rain on 18 November. Jeddah reported 38 mm, Medina 65 mm, Mecca 47 mm, Taif 98 mm, Yenber 26 mm, Gassim 72 mm while Tabuk, Umm Lejj and Wejh also received heavy rain. Later, dry weather prevailed. The south-eastern desert of Egypt was dry.

Maximum temperatures were generally in the range 27° - 32°C.

Breeding conditions

As a result of the widespread heavy rains in mid-November conditions became favourable for breeding on the Tihama.

Locusts

KINGDOM OF SAUDI ARABIA

During November small numbers of mature adults were reported from Jeddah, adults of unknown maturity were reported from Mecca and east of Taif. Four mature transient adults were collected on a fishing trawler 40 kilometres west of Jizan on 10 November.

On 7 December a ground survey team found three small patches of first instar hopper bands at Al Habgah (2007N/4042E). On 16 December a further 15 patches of bands were seen over an area of 600 square kilometres between Wadi Sedra and Ayyar (2018N/4032E). On 18 December hopper bands were seen over an area of 500 square kilometres extending from Wadi Doga (1940N/4155E) to Mudhailif and east to Moukhwa. Control operations are in progress.

Scattered adults at densities of 300 per hectare were seen at Ain El Basha and Sadiya (2039N/3954E).

Correction: it has been brought to our attention that the report of hoppers in Saudi Arabia in September referred to the Migratory Locust and not the Desert Locust.

There were no other reports of locusts from the Region.

SOUTH-WEST ASIAMeteorology

As reported in Summary No. 86 the continental anti-cyclone was the dominating influence in directing ridges of high pressure (of 1015 mb) over Pakistan and central India. As a result rainfall was essentially confined to southern India where numerous thunderstorms were reported by the GTS. The weather was warm and dry in the summer breeding areas with maximum daily temperatures in the range 30° to 35° C.

Breeding conditions

Conditions were not suitable for breeding.

Locusts

INDIA

Adults were reported from one locality in Bikaner and one locality in Jaisalmer districts during November, the maximum density being 150 per square kilometre at Agnao-Suhanji-ki-Dhani (2806N/7242E) on 22 November.

No locusts were reported from PAKISTAN during November, or from AFGHANISTAN during October.

FORECAST FOR JANUARY - FEBRUARY 1986

The rapid upsurge in Mauritania following good monsoon rainfall will result in considerable numbers of adults persisting during the forecast period. Most will disperse but some may survive as small swarms. Gregarious breeding will continue on the Tihama of Saudi Arabia and is likely to become more widespread. It will probably also occur on the coastal plains of Sudan and northern Ethiopia. Elsewhere the situation will remain calm.

In West Africa most adults produced during the late summer upsurge will disperse but some may survive as small swarms. Some may move north towards the Western Sahara during spells of southerly winds. Some adults may mature and lay but egg and hopper development will be slow. Small numbers of adults will persist in Timetrine, Adrar des Iforas and Tamesna in Mali and in Tamesna and Air in Niger.

In North-West Africa considerable numbers of adults, perhaps including one or two small swarms, may reach the southern part of Western Sahara during spells of warm southerly winds. These may mature and egg but egg and hopper development will be slow. Elsewhere the situation will remain calm.

In Eastern Africa generally small scale breeding is likely to occur on the Red Sea coasts of Sudan and northern Ethiopia and is likely to include some small pockets of gregarious hoppers. Small scale breeding may occur on the northern coast of Somalia.

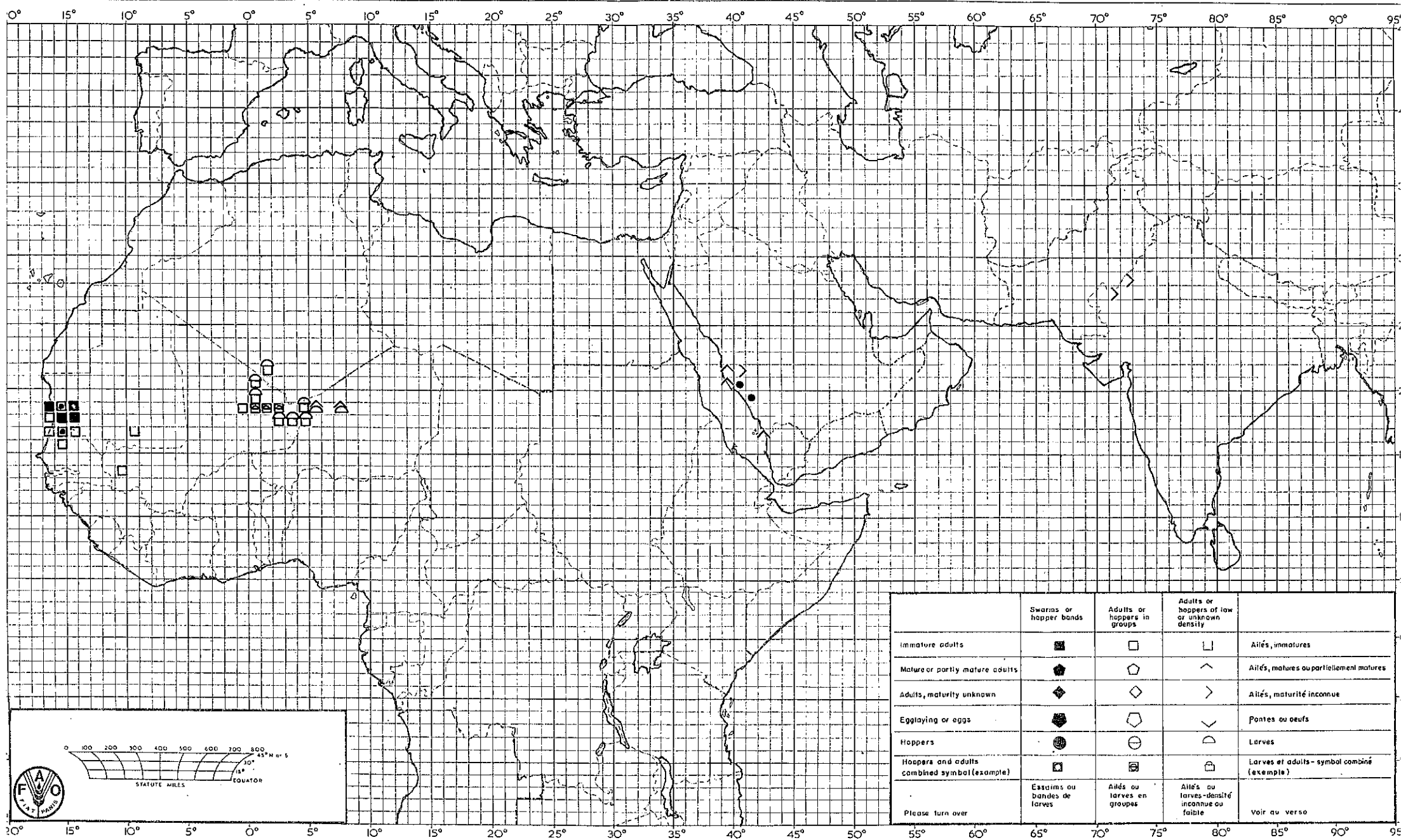
In the Near East gregarious breeding is likely to become more extensive on the Tihama of Saudi Arabia which received good rain in November and low density breeding is likely to be widespread. Small scale breeding may occur on the Tihama of the Yemen Arab Republic and in coastal areas of the People's Democratic Republic of Yemen.

In South-West Asia small numbers of adults will be present in coastal and interior areas of Baluchistan of Pakistan and small numbers of adults will persist in the summer breeding areas of India and Pakistan.

Rome

19 December 1985

Desert Locust Situation Summary No. 87 NOVEMBER-EARLY DECEMBER/NOVEMBRE-DEBUT DE DECEMBRE



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