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DESERT LOCUST SITUATION SUMMARY AND FORECAST

NO 89 JANUARY 1986 - EARLY FEBRUARY 1986

SUMMARY

Gregarious breeding was in progress in western Saudi Arabia and along the Red Sea coasts of Sudan and Egypt. Control was completed in Saudi Arabia in early February but was continuing in Sudan and Egypt. Some escapes could occur which could reach eastern Arabia and even southern Iran, Pakistan and Afghanistan during late March or April. Adults persist in south-west Mauritania and there were groups of adults and isolated hoppers in north-east Mali.

WEST AFRICA

Meteorology

The Intertropical Front (FIT) was practically stationary over the Gulf of Guinea. Meteosat infra-red imagery showed that it was most active opposite Cameroon and Gabon and over the ocean off Liberia. Satellite imagery also showed some Atlantic disturbances crossing the western Sahel and Sahara. One, on 2 February gave 7mm of rain at Nouakchott and 2mm at Dakar on 3 February, but extended to Libya (see North-West Africa).

The Harmattan was dry and relatively warm as a result of the presence of multiple ridges of high pressure extending from the Azores anticyclone as far as Sudan. Numerous sandstorms were detected by Meteosat and reported by the GTS.

Maximum temperatures were usually between 30° and 35° C in the interior but $20^{\circ}-25^{\circ}$ C in coastal areas.

Breeding conditions

Substantial areas of green vegetation, which would persist until March according to nomads, were present in the following areas in Mauritania: southeastern Adrar, Adafers, Tichit, Chinquitti, Makteir, north of Akjoujt, between Tichit, Nijeran and Bouderga.

In Mali there were patches of well developed <u>Schouwia</u>, <u>Morettia</u>, <u>Heliotropium</u> and <u>Pulicaria</u> in northern Adrar and southern <u>Timetrine</u>.

In Niger Schouwia remained green in certain stations in Air and Tamesna.

Locusts

MAURITANIA

Immature and mature adults were seen in the valley of the Senegal river, but no swarms were sighted.

MALI

Immature adults at densities of 25-2500 per hectare and isolated green fourth instar hoppers were found over areas of 150-250 hectares in the following areas in northern Adrar: Tin Orhi (2034N/0047E), Amamach (2019N/0059E), Ikadawaten (2044N/0048E) and Edjeden (2100N/0113E) and in the following areas in southern Timetrine: Adjora (1857N/0045W), Alachag (1842N/0054W), In Emendjet (1845N/0041W) and Tourza (1842N/0037W).

No locusts were reported from NIGER.

NORTH-WEST AFRICA

Meteorology

During the first half of January ridges from the Azores anticyclone greatly weakened cold fronts from the Atlantic which crossed the Maghreb from west to east. During the second half of January waves formed on cold fronts giving rise to heavier and more frequent rain mainly north of 30°N, although daily totals were generally less than 10mm. Some sandstorms were associated with secondary depressions which developed at about 30°N particularly over Libya. One cold front which extended from Senegal to Libya gave rise to sandstorms over Libya on 31 January when winds exceeded 75 kilometres per hour and resulted in 36mm of rain at In Amenas on 2 February.

Maximum temperatures were generally $20^{\rm o} - 25^{\rm o}{\rm C}$ in warm sectors but were sometimes less than $15^{\rm o}{\rm C}$ behind cold fronts.

Breeding conditions

It will have been too cold for breeding, except in southern Algeria.

Locusts

MOROCCO was reported clear in December. No reports were received from ALGERIA, LIBYA or TUNISIA.

EASTERN AFRICA

Meteorology

Mediterranean depressions affected coastal areas of Sudan probably by complex interactions with the Red Sea Convergence Zone which was situated at about 20° N. This may explain 27mm of rain at Port Sudan on 1 January and a further 6mm on 5 January.

Breeding conditions

According to a report from Sudan dated 28 January breeding conditions were stated to be excellent in Red Sea coastal areas and had certainly been favourable in December, contrary to what was reported in Summary No. 88.

The northern coastal plains of Somalia were reported to be dry.

Locusts

SUDAN

On 11 January a 10 square kilometre mature swarm settled at Khore Gwob (1900N/3724E) and another mature swarm measuring 15 square kilometres was reported in the same area on 12 January. Egg-laying was observed. On 14 January a mature swarm measuring 1 square kilometre was reported around Khore Hoshiry (1924N/3716E). Although these were the first reports of Desert Locusts from Sudan since October it is evident from the following reports that successful

breeding had been in progress since early December:

- Tokar Delta, groups of Desert Locust hoppers and adults.
- Khore Sitrab (1837N/3730E), groups of adults at 8400 per hectare over an area of 400 hectares; also groups of first to fourth instar hoppers at densities of 40-60 per square metre.
- Khore Ashat (1843N/3726E), groups of adults at 3480 per hectare over an area of 700 hectares; also groups of first, second and fourth instar hoppers at densities of 35-40 per square metre.
- Khore Weirim (1847N/3727E), groups of adults at 2700 per hectare over an area of 100 hectares; also first and second instar hoppers at densities of 8 per square metre.
- Khores Tobein (1909N/3720E) and Handub (1913N/3717E), groups of adults at 4800 per hectare over an area of 2400 hectares; also groups of third to fifth instar hoppers.
- Khore Hambokeib (1918N/3717E), groups of adults at 5400 per hectare over an area of 180 hectares, also isolated second to fourth instar hoppers.
- Khore Hoshiry (1924N/3716E), groups of adults at 8400 per hectare over an area of 60 hectares, also isolated third to fifth instar hoppers.
- Khore Arbaat (1949N/3705E), groups of adults at 18000 per hectare over an area of 80 hectares also isolated third to fifth instar hoppers.

Further hatching was reported from the Suakin area in early February.

Aerial and ground control operations were in progress.

Other countries in the Region were reported clear.

NEAR EAST

Meteorology

During the first half of January, ridges extending from central Asia gave generally dry weather over the Arabian peninsula although a cold front gave heavy rain from Tebuk to Medina on 2-3 January. By contrast, at the end of the month and in particular from 26 to 28 January Mediterranean disturbances were reactivated during their eastward progression towards Iran. However, according to GTS data daily rainfall totals did not exceed 6mm. From 1 February a new reactivation around the Gulf resulted in scattered rainfall in north-eastern Arabia but heavier amounts in UAE and Oman. Abu Dhabi received 11mm, Ras Al Khaimah 12mm, Buraimi 19mm and Seeb 38mm on 1 February and Thumrait 18mm and Seeb 41mm on 2 February.

On 5 February a further disturbance brought dense sandstorms to northern Arabia, but according to GTS data daily rainfall totals did not exceed 3mm during its eastward passage on 6-9 February.

Daily maximum temperatures were generally between 25° and 30° C in southern areas but in the northern and central areas they were generally between 15° and 25° C depending on the origin of the air mass.

Breeding conditions

Conditions became unfavourable for breeding along the southern Tihama of Saudi Arabia during January due to lack of rain. On the other hand they were reported to be very favourable in the South-Eastern Desert of Egypt.

Locusts

KINGDOM OF SAUDI ARABIA

As reported in Summary No. 88 the total area infested on the Lith and Qunfidah Tihamas was some 2500 square kilometres in early January. There were numerous late instar hoppers and fledglings, the main concentrations being southeast of Lith to the east of Wadi Ayyar where there were infestations over an area of 60-70 kilometres by 20-30 kilometres, and north-east of Mudhailif between Wadis Nawwan and Doga in an area of approximately 40-50 kilometres by 15-20 kilometres. Further infestations were present in the foothills where difficult terrain impeded control.

On 13 January three swarmlets were completely controlled south-east of Lith and a further 200 large hopper bands were controlled between Lith and Hali.

By the end of January the infested area was estimated at 3000 square kilometres and a further 100 hopper bands had been controlled. Solitarious adults at densities of up to 400 per hectare were present as far north as Medina.

Control operations terminated on the Lith-Qunfidah Tihamas in early February, when adults were again reported as far north as Medina, but no hoppers had been reported north of Lith.

EGYPT

A cable dated 29 January reported that ground control operations commenced on 27 January against first to third instar hopper bands in Wadi Di-ib (22N/35E) along the border with Sudan. Scattered solitary adults were reported copulating in the same area.

IRAQ was reported clear in December.

There were no other reports from the Region.

SOUTH-WEST ASIA

Meteorology

In general north-easterly winds covered the winter-spring breeding areas due to the quasi-permanent high pressure over Central Asia. When this temporarily weakened, westerly disturbances reached Baluchistan and Afghanistan. Nushki reported light rain on 13 January, while Nushki and Kharan received widespread heavy rain on 21 January, Quetta, Panjgur and Turbat received moderate rain on 20-21 January and there was light rain at Pasni on 21 January.

In early February another westerly disturbance traversed Afghanistan and Pakistan, giving 12mm of rain at Bust, 31mm at Quetta and 34mm at Jiwani.

Maximum daily temperatures were generally between 20° and 25° in Baluchistan.

Breeding conditions

It was too cold and dry for breeding.

Locusts

INDIA

According to a late report scattered adults were reported from three localities of Jaisalmer district in the first half of December, the maximum density being 225 per square kilometre at Askandra on 14 December. No locusts were seen in the latter half of December or during January.

PAKISTAN was reported clear during the second fortnight of January, AFGHANISTAN during December and IRAN during October.

FORECAST FOR MARCH - APRIL 1986

Although not reported earlier, it is now clear that the seasonal upsurge in the Central Region involved the African as well as the Arabian side of the Red Sea. Ground control operations have been completed in Saudi Arabia, but aerial and ground control is in progress in Sudan and ground control in Egypt. These control operations should prevent the formation of significant swarms but some escapes may occur. In Arabia these are likely to move northwards and into the interior. In Sudan they are also likely to move north and may cross the Red Sea to north-west Saudi Arabia. The situation in northern Ethiopia is unknown. The situation in the OCLALAV region is reported to be calm but there are probably still considerable numbers of scattered adults in western Mauritania, some of which could move north and start to breed in western Sahara and adjacent areas of Mauritania. Small scale breeding may occur in Baluchistan of Pakistan. Elsewhere the situation will remain calm.

In <u>West Africa</u> considerable numbers of scattered adults will persist in western <u>Mauritania</u>. Some may move north during periods of warm southerly winds and start to breed in southern parts of the western Sahara and adjacent areas of <u>Mauritania</u>. Small numbers of adults will persist in areas of green vegetation in <u>Mali and Niger</u>.

In North-West Africa there may be low density breeding in a few localities in the Algerian Sahara.

In <u>Eastern Africa</u> increasingly gregarious breeding will continue on the Red Sea coastal plains of Sudan and will probably spread further north. As the infestations become more gregarious they will present better targets for control operations but some escapes may occur. These are likely to move inland towards the end of the forecast period. The situation on the Red Sea coast of Ethiopia is unknown; substantial populations could be breeding and the possibility of swarm production cannot be ruled out. The situation will remain calm in northern Somalia.

In the Near East breeding is likely to occur in many areas along the northern Tihama and in western interior areas of Saudi Arabia and could result in the formation of some groups. Gregarious breeding will continue in the South-Eastern Desert of Egypt and may become more widespread. Scattered adults could reach Eastern Arabia including the United Arab Emirates and Oman in the latter part of the forecast period.

In South-West Asia small scale breeding is likely to occur in Baluchistan of Pakistan. Scattered adults may reach southern Iran, Pakistan and, possibly, Afghanistan during the latter part of the forecast period.

Rome 13 February 1986

