



FAO



EMERGENCY CENTRE FOR LOCUST OPERATIONS

DESERT LOCUST BULLETIN No. 198



Significant locust developments occurred primarily within three areas. On the Red Sea coast of Saudi Arabia, mixed infestations of adults and hoppers persisted and moderate scale breeding was in progress; new swarms that form are likely to move north along the coast and north-east towards the interior. In Egypt, moderate scale breeding occurred in the southern desert where small hopper bands are expected to appear during the forecast period. In the winter spring breeding areas of North-West Africa, numerous hopper bands were present in northern Mauritania whereas small swarms continued to lay; several small swarms have reached Oued Draa south of the Atlas Mountains of Morocco, as well as the Tindouf area in Algeria where they started laying; as a result, some new swarms could start forming by mid-April.

In Central Algeria, scattered adults persisted in several places, and there were indications of a small scale breeding in progress at some places. Small adult infestations persisted in northern Niger where limited control operations were undertaken.

Infestations continued to decline on the Red Sea coast of Sudan, and in Eritrea, mixed infestations of *Locusta* and, to a lesser extent, Desert Locust were present. Swarms reported moving from the east into Ethiopia and Djibouti earlier this month were confirmed as *Locusta*, which suggests a similar situation in Somalia.

Isolated adults and some light rains were reported from a few areas of the coastal areas of Baluchistan in Pakistan; however, no breeding was reported so far from the spring breeding areas of South-West Asia.

The FAO Desert Locust Bulletin is issued monthly, supplemented by Updates during periods of increased Desert Locust activity, and is distributed by fax, telex, e-mail, FAO pouch and airmail by the Emergency Centre for Locust Operations, AGP Division, FAO, 00100 Rome, Italy.

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WEATHER & ECOLOGICAL CONDITIONS DURING FEBRUARY 1995

Based on field reports, METEOSAT and ARTEMIS satellite imagery, and Météo-France synoptic and rain data. Rainfall terms: light = less than 20 mm of rain; moderate = 20 - 50 mm; heavy = more than 50 mm.

According to the prevailing winds, there could have been three short periods during which locusts could have moved further north in north-west Africa from Mauritania to the southern side of the Atlas Mountains in western Algeria on the 9th-11th, in southern Morocco on the 17th-20th, and in both areas on the 27th-28th.

During almost the entire month, high pressure systems were present over the Atlantic most of time off Morocco, which resulted primarily in north-easterlies to easterlies over the infested areas of northern Mauritania. However, a small depression was moving eastward over southern Morocco and western/central Algeria on the 9th-11th where clouds were visible over a vast area, fading in southern Libya on the 14th. As a result, strong south-westerlies were present and some light rainfall have been received locally, primarily in southern Morocco near Tan Tan (22 mm) and in western Algeria at Beni Abes and Timimoune (13 mm). Conditions are likely to improve in these areas. On the 17th-19th, the Atlantic high system was located further north and wind direction was from south-east. On the 27th-28th, another depression was present over southern Morocco and western Algeria, with strong westerlies to south-westerlies. Elsewhere in Morocco and Algeria, conditions were reported to be dry or drying out and temperatures continued to increase.

No significant rains were received in Mauritania. Conditions were generally drying out in the north, although green vegetation and soil humidity were persisting in areas of run-off. In Tamesna of Niger, conditions were reported to be favourable for breeding.

In Eastern Africa, favourable conditions are expected to persist in some areas. In Sudan, conditions were reported to be favourable in Wadi Oko and near Port Sudan early in the month, but they were were drying out in Tokar Delta. There were several large areas of green vegetation along the Eritrean coast where significant rains were reported during the second decade, and clouds visible along the Red Sea coasts of Sudan and Eritrea during the second half of February may have produced additional light rainfall. A small depression was present over Djibouti which received 66 mm on the 9th-10th and Dire Dawa in the Railway area 14 mm on the 9th-11th. A similar situation could have occurred on the northern coasts of Somalia where satellite imagery suggested several green areas.

As a result of several depressions coming from the west into the northern Arabian Peninsula, adults may have moved further in the interior primarily during the first half of the month. Favourable conditions were reported on the northern Tihama of Saudi Arabia in the Badr area, whereas they were dry in the south near Lith and Qunfudah. In addition, Jeddah received 45 mm and several locations of the Hail area in the central north light to moderate rains on the 12th, and substantial clouds along the Red Sea coast from Al Lith to northern Tihama of Yemen, as well as on the coastal plains of Aden on the 16th, may have produced light rains. Widespread moderate to heavy rains occurred on the 20th in Oman on the northern Batinah and some adjacent areas of the interior, up to the UAE in the Buraimi area. For example, 45 mm were recorded at Sohar. On the 23rd-24th, moderate rains were received in northern UAE and in the Musandam Peninsula of Oman. Conditions are expected to improve.

Some light rains were reported on the Baluchistan coast of Pakistan and Iran. As a result of several light and moderate recent rains in the India-Pakistan desert, conditions are expected to remain favourable to allow some adults to persist.



AREA TREATED IN FEBRUARY 1995

Algeria	1,520 ha (1-27 February)	Morocco	787 ha (1-23 February)
Egypt	10,700 ha (16-29 January)	Niger	50 ha (27 January)
	5,400 ha (1-10 February)	Saudi Arabia	52,959 ha (24 January - 19 February)
Eritrea	no details	Sudan	1,155 ha (16-31 January)
Mauritania	2,716 ha (21-31 January)		3,450 ha (1-28 February)
	12,875 ha (1-20 February)		



DESERT LOCUST SITUATION

WEST AFRICA

MAURITANIA

During the last decade of January, survey and control operations continued in northern Tiris Zemmour, primarily in the south-western part of the El Hank area (within ca. 2400-2430N/0800-0840W) where numerous mature and laying swarms were persisting. Most of the swarms were very small to small (although three exceeded 1,000 ha and one reached up to 2,800 ha) and densities were low to moderate. 2,716 ha has been treated. There were also indications of earlier breeding, perhaps between late October to early November, as a very small infestation of fourth-fifth instar gregarious hoppers was observed on 20 sq. m at 2335N/0741W. No locusts were reported from the Algerian border south-east of Tindouf to Bir Mogrein (2513N/1134W), and conditions were dry. Elsewhere, only a very small (ca. 10 sq.m) laying group has been reported north-east of Ouadane (2132N/1046W) on the 29th.

During the first two decades of February, operations continued against similar swarms and mature groups persisting in the El Hank area and further south and east to the Mali border. Some swarms were seen moving north. A total of 65 swarms, most of them small (150 ha in average) and covering a total area of 100 sq. km, were seen within an estimated area of 300 km by 150 km on the 1st-10th, and numerous groups of adults and small swarms, many of them laying, continued to be present within this area up to late February. Hatching and hopper bands, sometimes dense, were reported for the first time during the second decade. However, hatching started earlier than when it was detected as all instars, fledglings and immature adults were already present on the 15th. Ground and aerial control operations continued and treated a total of 12,865 ha during the two decades but they were hampered by sand storms. A smaller area of mature/copulating swarms was reported in the extreme north in the Oued El Hamra area (ca. 2630N/0830W) where control was carried out early in the month, and only isolated adults were reported on the 12th.

MALI

During the first decade of January, high numbers of immature and mature gregarious adults, some of them mixed with mid-instar hoppers sometimes forming bands, were reported by nomads primarily in the Tilemsi Valley up to the Algerian border and in the Timetrine area.

NIGER

In late January, control operations continued against mature adults in the Anou Makarene area (1806N/0732E) where 50 ha have been treated.

On 5-6 February, five small swarms (30 to 50 ha) were reported from Tamesna near In Abangharit (1754N/1602E), as well as several smaller infestations of mature gregarious adults, at densities up to 10,000 per ha.

No locust information had been received from other countries in the region up to 28 February.

NORTH-WEST AFRICA

ALGERIA

During the last decade of January, only isolated to scattered adults were reported at three places about 300 km west of Tamanrasset, two about 150 km south-east of In Salah (2712N/0229E) and one north-east of Adrar (2838N/0019E). Some of those near Tamanrasset were laying, which is the first indication of breeding so far, although on a small scale.

There was two unconfirmed reports of small loose swarms during the first decade of February, one near the Nigerian border on the 9th, the other near Tamanrasset on the 10th. Elsewhere, only scattered adults were reported from eight places south of the Tidikelt Plateau and west of Mouydir Mountains. During the second decade, small infestations of gregarious mature adults, some of them laying, were reported from 3 locations near In Salah, over a total of less than 4 ha.

By the end of the month, significant numbers of mature gregarious adults, some of them laying, appeared in several locations of the Tindouf, Adrar and In Salah areas. A maximum was seen over 150 ha, at a density up to 10 adults per sq. m, at Meliani (2718N/0225E). A total of 1,520 ha was treated during February.

MOROCCO

During February, a small loose swarm was reported about 100 km east of Asmara (2644N/1141W) on the 5th. Almost no locusts were observed until the 17th, but several groups and small loose swarms started to appear east of Asmara from the 19th onwards. A few of these reached further north Guelmim (2858N/1054W) and the western part of Oued Draa. Some scattered adults were seen near Tata (2945N/0758W) and as far north as Errachidia (3156N/0426W) on the 22nd-23rd. A total of 787 ha were treated up to the 23rd.

No locust information had been received from other countries in the region up to 28 February.

EASTERN AFRICA

SUDAN

During the second half of January, aerial and ground control operations were undertaken on the southern Red Sea coast against small infestations of first-fourth instar hoppers in the Khor Balatat area (1759N/3826E). Scattered adults were present over a total of 2,000 ha at several places of the Tokar Delta. During the first half of February, all instar hopper bands, some mixed with *Locusta*, were treated near Khor Balatat and in Tokar Delta. These infestations persisted in Khor Balatat during the second half of the month, whereas they declined in Tokar where only a few adults were reported at the end of the month. No locusts were reported from the Suakin area up to 27 February.

On 2 February, three medium sized and average density swarms were observed over a total of 1,250 ha further north in Wadi Oko. Most of these were mature and one was seen copulating at Khor Swarieb (2132N/3610E).

From late January to mid-February, scattered adults were reported along the Nile south of the Egyptian border in the Abri area (2047N/3021E) and some ground control had been undertaken. This suggests that undetected breeding occurred in the northern Province in late 1994 as a result of heavy unusual rains received during September and October.

A total of 1,155 ha was treated during the second half of January and 3,450 ha during February.

ERITREA

During the first two decades of February, low numbers of immature adults, mixed with *Locusta* adults, were reported along the coastal plains south of Massawa, primarily between Mersa Fatma (1453N/4017E) and Thio (1440N/4057E) where some gregarization was starting; fledglings were present at Gallalo (1508N/3959E). Scattered immature adults were present along the coast north of Massawa up to Mersa Gulbub (1624N/3815E); only one mature adult was reported. Limited control operations were undertaken.

SOMALIA

In late January, three swarms were seen moving west inland from the coastal plains in the extreme north-west near the Djibouti border. However, these could have been *Locusta*. One isolated adult was reported in Borama (0957N/4311E) on the 23rd.

During February, scattered adults were reported during a survey between Garisa (1037N/4326E) and the coast at 45 km north of Garisa, and one isolated adult was reported in Borama on the 17th.

DJIBOUTI

On 10 February, three swarms were observed moving west near the Somalia border. However, these were later confirmed to be *Locusta*.

ETHIOPIA

On 11 February, three to four swarms of *Locusta* were reported in the Railway area moving from the east.

KENYA, TANZANIA and UGANDA

No locust activity was reported up to 31 January.

NEAR EAST

EGYPT

From 16 January to 10 February, there were several additional reports of medium density mature swarms in eighteen oases along the Sudanese border between Libya and the Red Sea. Some of these were laying. Infestations ranged in size from 300 ha to 2,000 ha (about 1,000 ha in average), and control operations were in progress.

SAUDI ARABIA

From 24 January to 19 February, there were additional reports of swarms on the Tihama, as well as indications of a second generation breeding. Mixed infestations of hoppers and adults persisted north of Jeddah in the Masturah (2307N/3851E) and Badr (2344N/3846E) areas. There were also indications of adult movements towards north and south. One swarm was reported 150 km north of Yanbu (2405N/3805E) over an area of 7 km by 600 m and was seen laying. Adult infestations south of Jeddah were probably supplemented by migration from the north and hoppers commenced to appear within cropping areas near Lith (2009N/4017E) and Qunfudah (1908N/4105E). Ground and aerial control operations continued and treated 52,959 ha during the period.

YEMEN

During January, no locusts were found during a survey carried out on the Tihama from the Saudi border to Zabid (1411N/4320E).

No locusts were reported during a survey carried out on the northern Tihama near Wadi Hayran (1615N/4300E) on 16 February, and on southern Tihama south of Al Mansurah (1441N/4318E) on the 24th.

OMAN

No locust were reported during January.

No locust information had been received from other countries in the region up to 28 February.

SOUTH-WEST ASIA

PAKISTAN

No locust activity has been reported during the second half of January.

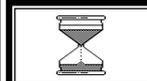
During the first half of February, isolated adults were reported from eight locations on the Baluchistan coast, at a maximum density of 225 adults per sq. km at Sardashi (2531N/6318E) on the 10th.

INDIA

During the second decade of January, isolated adults were reported from Rajasthan in two locations of Jaisalmer district, at a maximum density of 300 adults per sq. km at Asutar (2713N/7008E) on the 17th.

No locust activity has been reported during the first half of February.

No locust information had been received from other countries in the region up to 28 February.



FORECAST UNTIL MID-APRIL 1995

WEST AFRICA

MAURITANIA

As a result of swarm laying in the El Hank region, hoppers will continue to appear and form small bands early in the forecast period. The formation of new swarms is almost certainly already in progress and will continue on a small, possibly moderate, scale during the forecast period and further movement north is expected to occur.

MALI

Small numbers of adults are likely to persist along the Tilemsi valley and in Adrar des Iforas. However, the situation remains unclear.

NIGER

Low numbers of adults are likely to persist in Tamesna and may slowly mature and breed in some areas.

CHAD

Isolated adults are likely to persist in the Ennedi and, perhaps, Tibesti areas.

BURKINA FASO, CAMEROON, CAPE VERDE, GAMBIA, GUINEA BISSAU, GUINEA CONAKRY and SENEGAL

No significant developments are likely.

NORTH-WEST AFRICA

ALGERIA

Additional adults will continue to appear in the Tindouf area where hoppers are expected to appear from mid-March onwards as a result of recent laying. There is high probability that adults and several small swarms will appear south of the Atlas Mountains in the Bechar area where they are expected to lay during the forecast period. As a result hatching and band formation on a small, possibly moderate, scale could occur by the end of the period. Further south, hoppers are expected to appear in parts of the Sahara south of In Salah early in the forecast period. By the end of the period, fledging is expected to commence and new adults could move further north.

MOROCCO

There is high probability that several small swarms will continue to appear south of the Atlas Mountains where they are expected to lay during the forecast period. As result hatching and band formation on a small, possibly moderate, scale could occur by the end of the period.

TUNISIA and LIBYA

No significant developments are likely.

EASTERN AFRICA

SUDAN

Infestations are expected to decline along the southern coastal plains unless additional rain falls during the period. However, low numbers of adults and hoppers may persist especially in Tokar Delta and other cropping areas. The situation in the north is less clear; however, only small infestations are expected to be present and these should decline during the forecast period as vegetation dries out.

ERITREA

Adults will persist and mature along the Red Sea coast in areas of recent rains where small scale breeding

will occur. Small numbers of hoppers, possibly forming some small groups, will appear during the forecast period.

ETHIOPIA

A few adults may be present in the Railway area.

SOMALIA

The situation remains unclear. However, breeding conditions are thought to be favourable along the north-western coastal plains where breeding may be in progress and could continue during the forecast period. From April onwards, there is a possibility for adults to move further east along the northern coast.

DJIBOUTI

A few adults may be present on the northern coastal plains.

KENYA, TANZANIA and UGANDA

No significant developments are likely.

NEAR EAST

SAUDI ARABIA

New swarms will continue to form on the Tihama primarily north of Jeddah. Additional swarms are expected to form further south later in the forecast period. Depending on the persistence of favourable conditions, some swarms could mature and lay again while others could move north and north-east towards the interior during March where they are expected to mature and lay.

YEMEN

Scattered adults are expected to be present along the Tihama and to a lesser extent on the Aden coastal plains. If so, breeding should be in progress in those areas where conditions are favourable. There is low to moderate possibility that these infestations will be augmented by adults and perhaps a few small swarms from Saudi Arabia. By the end of the forecast period, adults and perhaps a few swarms could start to appear in the interior desert from Al Jawf to Shabwah.

EGYPT

Early in the forecast period, hoppers are expected to appear in those areas where breeding has occurred and form small bands. By the end of the period, fledging is expected to commence.

IRAQ

There is a low possibility of adults appearing along the border with Saudi Arabia as a result of any movement from the Red Sea coastal plains.

JORDAN

There is a low possibility of adults appearing in the south late in the forecast period as a result of any movement from the Red Sea coastal plains.

OMAN

Scattered adults may be present and breed on a small scale on the Batinah and perhaps in Sharqiya during the forecast period.

UAE

Isolated adults may be present in the Buraimi area.

BAHRAIN, ISRAEL, KUWAIT, LEBANON, QATAR, SYRIA, and TURKEY

No significant developments are likely.

SOUTH-WEST ASIA

IRAN

Scattered adults may be present and breed on a small scale in south-eastern coastal areas of Baluchistan during the forecast period.

PAKISTAN

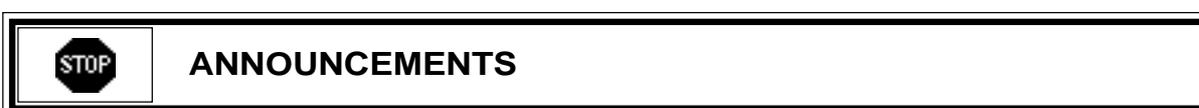
Breeding on a small scale could occur in coastal areas of Baluchistan during the forecast period.

INDIA

Low numbers of adults will persist in parts of Rajasthan.

AFGHANISTAN

No significant developments are likely.



The following meeting is scheduled:

21-24 March 1995 Technical Group of the Desert Locust Control Committee, FAO Rome

The FAO Desert Locust Bulletins, updates and other information are now available on Internet, as a gopher server:

GOPHER://GOPHER.FAO.ORG

1 March 1995

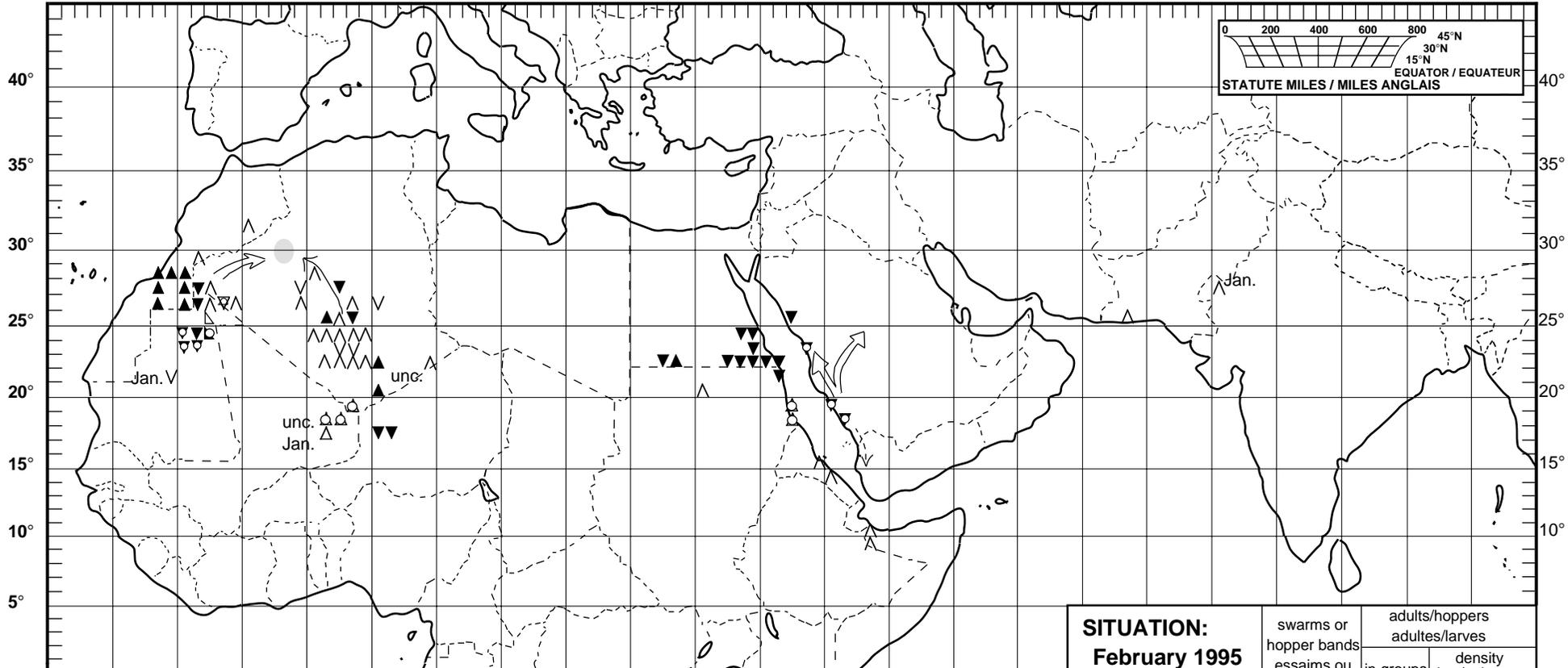


Desert Locust: summary Criquet pèlerin: situation résumée

No. 198



20° 15° 10° 5° 0° 5° 10° 15° 20° 25° 30° 35° 40° 45° 50° 55° 60° 65° 70° 75° 80° 85° 90° 95°



FORECAST TO: PREVISION AU: 15.4.95	LIKELY PROBABLE	POSSIBLE POSSIBLE
current undetected breeding reproduction en cours et non détectée		
major swarm(s) essaim(s) important(s)		
minor swarm(s) essaim(s) limité(s)		
non swarming adults adultes non essaimant		

SITUATION: February 1995 février 1995	swarms or hopper bands essaims ou bandes larvaires	adults/hoppers adultes/larves	
		in groups en groupes	low/unknown densité faible/inconnue
immature adults adultes immatures			
mature or partly mature adults adultes matures ou partiellement matures			
adults, maturity unknown adultes, maturité inconnue			
egg laying or eggs pontes ou œufs			
hoppers larves			
hoppers & adults (combined symbol example) larves et adultes (exemple symboles combinés)			

15° 20° 25° 30° 35° 40° 45°