

# FAO



## EMERGENCY CENTER FOR LOCUST OPERATIONS

### DESERT LOCUST BULLETIN No. 172



The upsurge continues on both sides of the Red Sea coast where several swarms and bands were reported from Sudan, Saudi Arabia and Yemen during the month; to a lesser extend, mainly hoppers in small numbers remained in Eritrea and populations have started to build up in southern Egypt. As a result of earlier large scale breeding, and despite of control operations, significant numbers of hoppers and adults, some of them forming bands and swarms, are expected to continue to appear in many places of these areas during the entire forecast period. These adults are likely to stay, mature and breed locally as a result of widespread favourable conditions and probable limitation of flight by current low temperatures. However, some migration from the Tihama towards north or interior regions of the Saudi Arabia Peninsula could be possible.

Elsewhere, no locusts were reported from West Africa. Some adults may be present and persist in northern parts of western Mauritania, Mali, Niger and Chad. No significant breeding is expected in these areas.

Conditions are expected to be generally dry south of Atlas mountains in North West Africa. Some adults may be present and persist in Central Sahara of Algeria, but no significant breeding is expected.

Conditions are dry in winter-spring breeding areas of Pakistan where no locusts were reported. Isolated adults may be present and breeding on the coast of Baluchistan in Iran where light rainfall occurred. Isolated adults are persisting in Rajasthan of India.

The FAO Desert Locust Bulletin is issued monthly, supplemented by Updates during periods of increased Desert Locust activity, and is distributed by telefax, telex, FAO pouch, or mail by the Locust, Other Migratory Pests, and Emergency Operations Group, AGP, FAO, 00100 Rome, Italy.

**Telephone:** (39-6) 5797-4021 or -4578

**Telefax:** (39-6) 5797-5271

**Telex:** 610181 FAO I



## WEATHER AND ECOLOGICAL CONDITIONS

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.

During December, the weather was dry in the entire winter breeding area of north-west Africa and west Africa. Seasonal depressions moved eastwards across the Mediterranean during the entire month, but have resulted in light rain primarily from northern Morocco to northern Tunisia, and at times to northern Egypt. Frontal lines were observed over southern Morocco and Central Sahara of Algeria on the 12th-18th and over Central Algeria on the 25th-27th, where isolated cold clouds occurred at times; however, no significant rains were reported from these areas and, as a result of cold northerly winds during the last decade, ecological conditions are expected to be unfavourable for breeding or migration. Conditions are also expected to be unfavourable and cold in northern parts of Mauritania, Mali, Niger and Chad although a few isolated cold clouds were seen at times over these regions.

Although no significant rain were reported from Eastern Africa during the month, breeding conditions are already favourable and will remain so until at least the end of the winter on the Red Sea coast in southern Egypt, in Sudan in Wadi Diib/Oko, and from south of Port Sudan to the coastal area east of Asmara in Eritrea.

Breeding conditions are also already favourable and will remain so until at least the end of the winter on southern Tihama of Saudi Arabia and on the Tihama of Yemen. Frontal lines on the entire Red Sea were observed on the 13th-16th and a significant cold cloud activity on southern Tihama and adjacent highlands of Saudi Arabia was seen during the second decade; cold clouds were also seen during the two last decades over eastern parts of the Saudi Arabia Peninsula. However, no significant rain were reported from any of these places.

Light rain occurred in the Central Makran of Pakistan during the first half of the month, but the conditions were reported to be dry in the winter-spring breeding areas during the entire month. On the coastal area of Baluchistan of Iran, Chah Bahar received 18 mm on the 9th and a depression present over Baluchistan on the 30th-31st may have produced some rainfall; as a result, conditions may have improved at some places. No rain were reported in India during first half of December.



## AREA TREATED IN DECEMBER 1992

Egypt	details awaited
Sudan	6755 ha
Ethiopia	details awaited
Saudi Arabia	373 sq. km
Yemen	details awaited



## WEST AFRICA

### MALI

A late report was received stating that isolated yellow females were seen north of Gao on October 11th; there was also an unconfirmed report of locusts near the same area by the same period.

**No locust information had been received from other countries in the region up to 31 December.**

## NORTH-WEST AFRICA

### MOROCCO

No locust activity was reported during November.

### LIBYA

During November, isolated immature adults were found near Sarir Project (2745N/2200E) mixed with hoppers and adults of *Locusta* on 1000 ha.

No locust activity was reported during December.

### TUNISIA

No locust activity was reported in the southern regions during November.

**No locust information had been received from other countries in the region up to 31 December.**

## EASTERN AFRICA

### SUDAN

During December, large scale infestations continued to be reported from the Red Sea coast, primarily in three areas near Suakin, in Tokar Delta and near Airtarba (1755N/3822E), where ecological conditions are still favourable. As a result of swarm laying in late November, these infestations consist mainly of medium to high density early instar hopper bands ranging from very small (1 sq. m) first instar patches to 2500 sq. m third instar bands, some of them marching; bands were present in millet cultivations in Tokar Delta area, and to a lesser extend in Airtarba area, where many were mixed with similar populations of *Locusta*. In addition to these, there was a report of 5 small mature and laying swarms near Suakin and Aitarba, which may be a result of undetected breeding in wadis within the interior of Eritrea. Scattered to groups of hoppers, fledglings and adults were also reported at numerous places within the same areas from Suakin to the Sudanese border up to the 16th. Ground and aerial control operations were in progress.

The extension north of green vegetation along the Red Sea coast is only up to Khor Agwetit (1958N/3708E) where some bands and swarms were perhaps seen by mid-December. Ecological conditions are dry up to Mohammed Qol south of the Egyptian border, indicating that no significant rainfall were received in this area during the last months.

Further north towards the interior, ecological conditions were favourable only in Wadi Diib/Okoko where infestation was on a small scale up to December 20th, consisting primarily of several small (25 sq.m) first and second instars hopper bands in small cultivation plots south of Khor Mafdeib (2122N/3603E) seen on the 18th. Elsewhere, only scattered first instars hoppers and some mature adults were observed at a few places along these wadis.

### ETHIOPIA

During December, a survey on the Red Sea coast in Eritrea indicated that most of the population has departed as the main infestation was observed from Sheb (1554N/3908E) to Mersa Cuba (1612N/3911E) on 6th-9th, and consisted in small groups of low densities of all instars hoppers (3 per sq. m in average) showing frequently gregarious coloration and sometimes marching behaviour; only

one 5 sq. m band was reported near Sheb, but droppings and defoliation in cultivation indicated that a denser population was present earlier at Mersa Cuba. Scattered fledglings and immature adults were also seen at several places in the same area.

Ecological conditions were highly favourable from Keren (1647N/3827E) to the Sudanese border, as suggested by an aerial survey on the 10th and a significant infestation is almost certain in this area; however, ground surveys and control operations are seriously limited by security problems.

#### **DJIBOUTI, KENYA, TANZANIA, UGANDA**

No locust activity was reported up to 15 December.

#### **SOMALIA**

No locust reports have been received up to 30 December.

**No locust information had been received from other countries in the region up to 31 December.**

### **NEAR EAST**

#### **SAUDI ARABIA**

As the migration of swarms has continued from Eastern Africa, a total of 21 laying swarms, covering a total area of 347 sq. km at densities ranging from 20 to 70 adults per sq.m., were observed and treated at seven locations along the Southern Tihama between north of Jeddah at 2155N/3908E and north of Qunfudah at 1940N/4049E from 17 November to 5 December.

From 27 December to 2 January, five swarms were reported and controlled on a total area of 26 sq. km on the southern Tihama, down to the border with Yemen.

#### **YEMEN**

During November, isolated to scattered adults, some of them copulating, were reported from northern Tihama at four locations between Al Zahrah (1544N/4300E) and Bayt Al Faqih (1431N/4320E). Some hoppers were also observed at two other locations in the same area.

During the second decade of December, there were indications of undetected migrating adults having bred earlier on the Tihama as numbers of copulating and laying adults mixed with hoppers were reported to be widespread along the northern Tihama between Wadi Hayran (1644N/4258E) and Bayt Al Faqih; a swarm was also reported north of Al Zahrah on the 20th. Control operations were in progress.

There was an unconfirmed report of a swarm much further east in Thamut area (1718N/4955E) on the 24 December, which would indicate undetected local breeding probably in Wadi Hadhramaut area. Further details were requested to clarify the situation.

#### **EGYPT**

During December, there were indications that significant breeding have already commenced as hopper infestations were reported in the interior near Aswan and within approximately 40 km along the Red Sea coast by the Sudanese border between Abu Ramad (2220N/3627E) and Halaieb (2214N/3638E) up to December 16th. Further details are awaited.

#### **OMAN**

A few isolated immature adults were observed on the south Batinah coast early December.

**No locust information had been received from other countries in the region up to 31 December.**

### **SOUTH-WEST ASIA**

#### **PAKISTAN**

No locust activity was reported during December.

**INDIA**

During the last decade of November and the first decade of December, populations continued to decrease in Rajasthan as isolated adults were reported from respectively 15 and 10 locations in Bikaner and Jaisalmer districts, at a maximum density of 750 adults per sq. km at Pugal (2831N/7248E) in Bikaner district on November 25th.

**No locust information had been received from other countries in the region up to 31 December.**

**WEST AFRICA****MAURITANIA**

Scattered adults are likely to be present and persist in western Trarza, Inchiri, Adrar and Tiris Zemmour, where breeding is not likely to occur due to seasonal low temperatures.

**MALI**

Isolated or scattered adults may be present in Adrar des Iforas and Tamesna; however, the situation remains unclear.

**NIGER**

Small numbers of adults are likely to be present and persist in northern Tamesna, but no breeding is expected during the forecast period. Isolated adults might also be present in Air.

**CHAD**

A few adults may be present and persist in northern Tibesti.

**BURKINA FASO, CAMEROON, GAMBIA, GUINEA BISSAU, GUINEA CONAKRY and SENEGAL**

No significant developments are likely.

**NORTH-WEST AFRICA****ALGERIA**

Scattered adults may be present in winter-spring breeding areas of Central Sahara where breeding is not likely to occur due to seasonal low temperatures.

**MOROCCO, TUNISIA and LIBYA**

No significant developments are likely.

**EASTERN AFRICA****SUDAN**

Despite of current surveys and control operations, numerous fledglings will appear by mid-January on the Red Sea coast at places from Port Sudan to Aitarba and will almost certainly result in several swarms. If so, these are expected to stay in this area where conditions will remain favourable until at least late winter, mature and start laying during the second half of the forecast period. Continuous small scale breeding will also result from scattered and widespread adults dispersed along the coast in the same area, which do not represent suitable targets for control. Further north, small numbers of fledglings are likely to appear during the second half of January in Wadi Diib/Okoko where they will stay, mature and start breeding by the end of the forecast period.

**ETHIOPIA**

Scattered to small numbers of fledglings will appear early January on the Red Sea coast north of Asmara, primarily between Sheb and Mersa Cuba, where they will stay, mature and start laying during the first half of the forecast period. Significant breeding have almost certainly already commenced further north along the coast between Keren and the Sudanese border where the conditions will remain highly favourable; any attempt should be tried to clarify the situation in this area.

**DJIBOUTI**

Although no significant developments are likely, surveys should be carried out on the northern coast.

**SOMALIA**

Scattered adults may be present on the northern coastal plains; no significant developments are likely unless undetected local breeding occurs.

**KENYA, TANZANIA and UGANDA**

No significant developments are likely.

**NEAR EAST****SAUDI ARABIA**

Despite of immediate control operations against swarms, laying is likely to have already occurred and number of bands will almost certainly appear during the forecast period on the southern Tihama where it is strongly recommended to continue surveys and control measures. Due to seasonal temperatures, only some day flying swarms may continue to migrate from Eastern Africa into the southern Tihama during the forecast period; ecological conditions will allow any incoming mature swarm to start breeding.

There also is a possibility of adults migrating during the day from southern Tihama towards northern or central regions of the Arabian Peninsula; however, this will depend basically on the temperatures.

**YEMEN**

Despite of control operations, hopper bands resulting from earlier undetected breeding will continue to appear during the forecast period on the southern Tihama where ecological conditions will remain favourable; as current hoppers will continue to fledge and mature, significant breeding will continue during the entire forecast period and it is strongly recommended to continue surveys and control measures. Due to seasonal temperatures, only some day flying swarms may continue to migrate from Eastern Africa into the Tihama during the forecast period; ecological conditions will allow any incoming mature swarm to start breeding immediately.

There also is a possibility of adults migrating during the day from Tihama towards northern or central regions of the Arabian Peninsula; however, this will depend basically on the temperatures.

If the swarm north of Wadi Hadhramaut is confirmed, it will be expected to breed locally if ecological conditions are favourable, as current temperatures in this area are probably not favourable for flight.

**EGYPT**

Despite of current surveys and control operations, numbers of fledglings will almost certainly appear by mid-January on the southern Red Sea coast and could result in groups of adults or some small swarms. If so, these are expected to stay in this area where conditions will remain favourable until at east late winter, mature and start laying during the second half of the forecast period.

**OMAN**

Although developments are not likely, surveys should be undertaken in the Salalah region to assess the situation. Otherwise, isolated to scattered adults may continue to appear and breed on a small scale in areas of recent rain on the Batinah coast.

## **UAE**

Isolated to scattered adults may be present and small scale breeding may be in progress in areas of recent rain in the Fujayrah area.

## **BAHRAIN, IRAQ, ISRAEL, JORDAN, KUWAIT, LEBANON, QATAR, SYRIA and TURKEY**

Due to low seasonal temperatures, no migrations and no significant developments are likely.

## **SOUTH-WEST ASIA**

### **PAKISTAN**

Isolated to scattered adults are likely to be present on the Makran coast and Lasbella districts, where they may breed on a small scale if rainfall occurs.

### **IRAN**

Isolated to scattered adults are likely to be present in Baluchistan on the coastal area near Chah Bahar, where they may breed on a small scale if rainfall occurs.

### **INDIA**

Populations will continue to decrease in Rajasthan as a result of dry conditions, and only some isolated adults are likely to persist.

### **AFGHANISTAN**

No significant developments are likely.



Due to the serious situation in Eastern Africa and Near East, the Director General of FAO has decided to re-establish ECLO (Emergency Center for Locust Operations).

Happy New Year to all from the FAO Locust Group.

**5 January 1993**

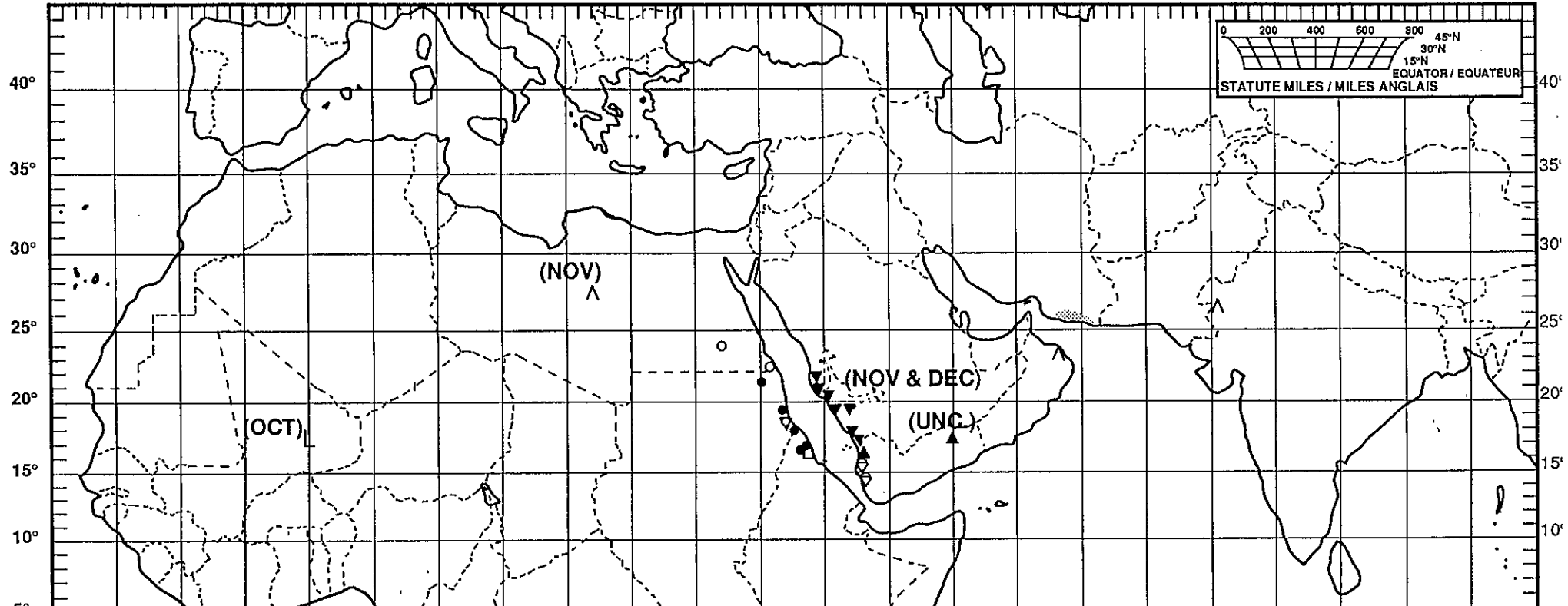


# Desert Locust: summary Criquet pèlerin: situation résumée

No.172



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



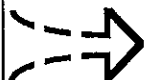
FORECAST TO:  
PREVISION AU: 15.2.93

LIKELY PROBABLE  
POSSIBLE POSSIBLE

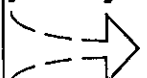
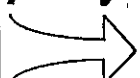
current undetected breeding  
reproduction en cours et non détectée



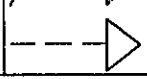
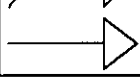
major swarm(s)  
essaim(s) important(s)



minor swarm(s)  
essaim(s) limité(s)



non swarming adults  
adultes non essaimant



SITUATION:  
DECEMBER 1992

swarms or hopper bands essaims ou bandes larvaires	adults/hoppers adultes/larves	
	in groups en groupes	density 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°