

# FAO



## EMERGENCY CENTRE FOR LOCUST OPERATIONS

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### DESERT LOCUST BULLETIN No. 176

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During April, there was a significant improvement in the Desert Locust situation due to a decline in locust populations along the Red Sea coastal plains. Egypt reported hopper bands and a few swarms at the end of the month and a few small infestations of solitary locusts remain on the coasts of Sudan and Eritrea. However, other areas were reported clear as a result of control operations, current unfavourable breeding conditions and previous emigration towards the northern central interior of Saudi Arabia where control operations were undertaken up to early April. Due to unusually heavy rains in mid-month, breeding conditions remain favourable on the Red Sea coast of Sudan and Eritrea as well as in the central Arabian interior where rains continued during the month.

Small scale breeding has occurred along the coasts of the Gulf of Aden where scattered adults and hoppers, including perhaps a few hopper bands, are present in Yemen on the coastal plains east and west of Aden and perhaps in northern Somalia. Scattered adults were also present in winter/spring breeding areas of Pakistan and in Rajasthan of India.

The forecast period is characterized by the initial movement of populations from winter/spring breeding areas towards traditional summer breeding areas. Hence, small numbers of westward-moving adults are expected to appear in the interior of Sudan as well as eastward-moving adults in the Indo-Pakistan border area. If early rains occur in these areas, adults are likely to start laying by the end of the forecast period. Some infestations are expected to persist along the Red Sea coast of Sudan and Eritrea, in the northern central interior of Saudi Arabia, and on the coastal plains along the Gulf of Aden and continue to breed in those areas that remain favourable. Although the forecast is optimistic, surveys should continue in all areas of recent rainfall to monitor the situation.

No locust activity was reported in North-West and West Africa and no significant developments are expected during the forecast period.

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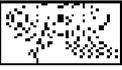
The FAO Desert Locust Bulletin is issued monthly, supplemented by Updates during periods of increased Desert Locust activity, and is distributed by telefax, telex, FAO pouch, or mail by the Locust, Other Migratory Pests, and Emergency Operations Group, AGP, FAO, 00100 Rome, Italy.

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

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

**Telex:** 610181 FAO I

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## 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 April, light rains fell in northern central Saudi Arabia during the first and third decades. Most of these rains were associated with depressions centered over the northern Arabian Peninsula which drew moist air from the south. At times, rains were widespread and heavy; for example Gas-sim reported 73 mm on the 7th. Light to moderate rains also fell in eastern Arabia on the Oman coast during the first decade; for example, Saiq received 23 mm on the 4th. Significant cold clouds were present over southern and eastern Arabia during the second decade; however, no reports of rainfall were received. On the Tihama, conditions were becoming unfavourable for breeding.

On 14-17 April, unusually heavy rains, associated with strong south-easterly winds fell along the northern Red Sea coast of Eritrea and southern coast of Sudan, extending into the Northern Province of Sudan. In three days, Port Sudan received a total of 191 mm and an estimated 150 mm fell in the Massawa area. Wadis were seen flowing along the coast and damage caused by extensive flooding was reported from Port Sudan, Tokar Delta and in Massawa and surrounding villages. In the Northern Province of Sudan, widespread heavy rains fell near Berber and extended west into the Has-saniya area and north toward Wadi Halfa. Wadis were reported flowing near Station 5 (2100N/3230E) and Station 6 (2040N/3235E) in the Nubian Desert. Djibouti also reported 25 mm on the 15th. The long-term rainfall average for Port Sudan in April is 1 mm and 111 mm annually, Berber 1 mm and 73 mm, and Massawa 14 mm and 181 mm. As a result of these rains, conditions are expected to be unusually favourable for breeding along the coast from Djibouti to Port Sudan during the forecast period. Further north, conditions remain favourable along parts of the south-eastern coast of Egypt as a result of some light rainfall at the end of the month.

In eastern Ethiopia, light rain fell during the second half of the month near Dire Dawa, Jigjiga and in the Railway Area, and vegetation was reported to be green in the Harerge region. In adjacent areas of northern Somalia, light rains fell on 14-15 April and heavy rains occurred on the 19th near Hargeisa. Breeding conditions are reported to be favourable in northern coastal areas.

In South-West Asia, ecological conditions continue to remain dry along the Mekran of Pakistan. Unusual rains occurred in the Thar Desert where Mirpurkhas reported 55 mm on the 13th (long term average for April is about 2 mm) and in Rajasthan where Jodhpur received 15 mm during the first half of April.

In the Sahel of West Africa and Sudan, the ITCZ remained south of the summer breeding area. No significant rainfall was reported, although by the end of the month cold clouds were present in eastern Chad and Sudan as far north as Abeche, El Fasher, En Nahud and El Obeid. En Nahud received 25 mm on the 25th and Abeche 11 mm on the following day.

In northern Africa, several eastward-moving depressions occurred over the Mediterranean throughout the month. However, only some of these resulted in light rainfall during the first and third decades, primarily occurring north of the Desert Locust recession area north of the Atlas Mountains from Morocco to Tunisia. Rains were reported from the Ghallamane area of north-eastern Mauritania towards the Algerian border in early April. However, conditions are unfavourable for breeding.



## AREA TREATED IN APRIL 1993

Egypt	ca. 11,000 ha
Saudi Arabia	no details available
Yemen	5,000 ha (March)



## WEST AFRICA

### MAURITANIA

No locusts were reported during April.

**No locust information had been received from other countries in the region up to 30 April.**

## NORTH-WEST AFRICA

### MOROCCO

No locust activity was reported during March.

### LIBYA

No locusts were reported during April.

**No locust information had been received from other countries in the region up to 30 April.**

## EASTERN AFRICA

### SUDAN

Late information indicated that there were 39 reports of immature adults covering a total area of 1,880 ha along the southern Red Sea coast during the first half of March.

In April, the locust situation improved with only scattered hoppers reported in the Tokar Delta up to the 4th and a few immature solitary adults present along the coast, at a maximum density of 5 per ha in the Halibai area (1752N/3830E), up to the 17th.

### ETHIOPIA

During the second half of March, the situation improved on the coastal plains of Eritrea as a result of emigration and aerial control operations. By the end of the month, low densities of adults were scattered throughout coastal and foothill areas between Arafale (1505N/3945E) to the Sudanese border. On 30 March, a swarm was seen on the southern coast in the Thio area (1442N/4055E); however, no further traces were found.

During the first half of April, low densities of scattered adults continued to be present along the coastal plains in the above areas.

### DJIBOUTI

A late report stated that three solitarious adults were seen in Djibouti during the last decade of March; however, these may be *Locusta*.

### SOMALIA

In March, truck drivers reported seeing scattered adults along the north-western coastal plain between Bulhar (1022N/4426E) and Silil (1100N/4330E) and there were unconfirmed reports of hopper bands and scattered adults between Bulhar and Zeila (1121N/4329E) in April. On 17 April, small bands of late instar hoppers were seen marching at three locations along the plains between Silil and Garisa (1036N/4326E). However, it is not clear if these infestations are Desert Locusts or *Locusta*. No locusts were seen in the Hargeisa area.

### KENYA, TANZANIA and UGANDA

No locust activity was reported during April.

## NEAR EAST

### SAUDI ARABIA

Additional information indicated that there were a total of 44 reports of swarms during March in the Medinah area which were controlled as well as 40 hopper bands. To the south-west and north, 95 and 42 hopper bands were treated in the Badr (2350N/3854E) and Khaybar (2550N/3910E) areas, respectively. Hopper bands ranged in size from 50-2,500 sq. m. Control operations continued into early April. There was also an unconfirmed report of a swarm seen at Bani Malik (2020N/4118E) flying east in March.

On the Red Sea coast, a late report stated that control operations were undertaken in an area of 150 sq. km against hopper bands on the Tihama north of Jeddah near Tuwwal (2220N/3908E) on 24 March, and teams had cleared other infestations on the Tihama south of Jeddah and near Jizan by early April.

### YEMEN

On the Tihama, a late report stated that solitary adults and hoppers were present within a 5 sq. km area near Bayt Al Faqih (1427N/4314E) on 29 March. In April, no locusts were seen during surveys along the Tihama.

On the coastal plains east of Aden, small numbers of immature adults, at densities up to 10,000 per ha, and high densities of gregarizing hoppers were present within an area of 20 sq. km near Ahwar (1331N/4643E), within 18 sq. km near Hidyha and within 2 sq. km near Massib (1330N/4630E) on 5 April. Scattered mature adults, at densities up to 1,500 per ha, and low densities of hoppers continued to persist on the coastal plains west and north of Aden. Some were reported to be forming small groups near Al Waht (1258N/4453E) by the 26th and ground control operations were in progress.

### EGYPT

Numerous medium-sized dense hopper bands of all instars, including some immature pinkish adults, were present on the south-eastern coast in Wadis Diib (ca. 2234N/3603E), Shaab (ca. 2252N/3543E), Bitan (ca. 2325N/3457E), Hodein (ca. 2310N/3517E) and Sahliya. Ground control operations treated were carried out on 24-26 April against hoppers as well as a 16 sq. km immature swarm in Wadi Diib.

### OMAN

Two adult locusts were seen in Muscat on about 21 April.

**No locust information had been received from other countries in the region up to 30 April.**

## SOUTH-WEST ASIA

### PAKISTAN

During the second half of March, low densities of solitarious adults were reported from 26 locations throughout coastal and interior areas of the Mekran and 3 locations of Lasbela district with a maximum density of 900 per sq. km at Sulaika (2550N/6256E) in Turbat district of Mekran on the 16th.

During the first half of April, similar populations continued to be present in Mekran and Lasbela with a maximum of 450 adults per sq. km reported at Chamburi Kalat (2609N/6443E) in Turbat on the 12th.

### INDIA

During the second half of March, scattered adults were reported from three locations in Bikaner district with a maximum density of 150 per sq. km at Sattasar (2835N/7304E) on the 17th.

During the first half of April, similar populations continued to be reported from Bikaner as well as two locations in Jaisalmer where adults were seen at a maximum density of 375 per sq. km at Dhanana (2649N/7059E) on the 9th.

**No locust information had been received from other countries in the region up to 30 April.**



## WEST AFRICA

### MAURITANIA

Locust numbers, if present, are expected to decrease in Tiris Zemmour and northern Adrar as conditions become unfavourable and adults move towards summer breeding areas of Tagant, Trarza and the two Hodhs. If early rains occur in these areas, laying may start by the end of the forecast period.

### MALI

Isolated adults may be present in some areas of the Adrar des Iforas and Tamesna and start to lay by the end of the forecast period if early rains occur.

### NIGER

Isolated adults may be present in some areas of Tamesna and Aïr and start to lay by the end of the forecast period if early rains occur.

### CHAD

Isolated adults may be present in northern Tibesti and appear late in the forecast period in northern areas of Kanem, Batha, Biltine, and Ouaddai regions if early rains occur.

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

No significant developments are likely.

## NORTH-WEST AFRICA

### MOROCCO

Locust numbers, if present, are likely to decrease in the extreme south as conditions become unfavourable and adults move towards summer breeding areas of the Sahel.

### ALGERIA

Isolated adults may persist in some places of the Central Sahara and a few adults may appear further south as adults begin to move towards summer breeding areas of the Sahel.

### TUNISIA and LIBYA

No significant developments are likely.

## EASTERN AFRICA

### SUDAN

As a result of unusually heavy rains earlier this month, small infestations of adults are likely to persist and breed along the southern coast and may be augmented by any movement into the area from the east. During the forecast period, small numbers of adults are likely to appear and breed in the Northern Province near Berber and in the Eastern region near Kassala where recent rains occurred. By the end of the forecast period, a few adults are likely to appear in the summer breeding areas of Northern Kordofan and perhaps Northern Darfur where they will start to lay if early rains occur.

### ETHIOPIA

As a result of unusually heavy rains earlier this month, small infestations of adults are likely to persist and breed along the coast and may be augmented by any movement into the area from the east. Some adults may appear in western areas late in the forecast period.

**DJIBOUTI**

As a result of unusually heavy rains earlier this month, small infestations of adults may be present and breeding along the northern coastal plains where they are expected to persist during the forecast period.

**SOMALIA**

Although unconfirmed, small infestations of adults and hoppers are likely to be present in areas of green vegetation along the northern coastal plains. If these are confirmed, a few swarms may form and breed in areas of recent rainfall during the forecast period.

**KENYA, TANZANIA and UGANDA**

No significant developments are likely.

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

As a result of continuing rains in the northern central interior, adults are likely to persist between Hail and Al-Khushariya and some may continue to breed. However, numbers are likely to decrease late in the forecast period as conditions become unfavourable and adults move towards summer breeding areas. A few scattered adults may remain on the Tihama.

**YEMEN**

Infestations on the Tihama are expected to decline further during the forecast period as a result of unfavourable conditions. Small scale breeding is likely to continue in green areas on the coastal plains west and east of Aden. As vegetation starts to dry, populations could become concentrated, forming perhaps a few small groups. Adults may appear in the interior of Shabwah between Bayhan and Nisab as well as in Wadis Hadhramaut and Al-Jawf.

**EGYPT**

Small infestations of adults may persist and be augmented by any movement into the area from the east. However, numbers are expected to decrease by the end of the forecast period as conditions become unfavourable and adults move south-west towards summer breeding areas.

**UAE**

Isolated adults may be present and breeding in areas of green vegetation near Ras Al Khaymah and Fujayrah.

**OMAN**

Isolated adults may be present and breeding in areas of green vegetation on the Musandam Peninsula and the Batinah coast, and perhaps in some interior areas.

**KUWAIT, BAHRAIN and QATAR**

A few adults may appear as a result of movement from the west and lay in areas of green vegetation.

**IRAQ, ISRAEL, JORDAN, LEBANON, SYRIA and TURKEY**

No significant developments are likely during the forecast period.

**SOUTH-WEST ASIA****IRAN**

Isolated adults may be present on the south-eastern coast and may be augmented by a few adults from the west; however, by the end of the forecast period, numbers will decrease as conditions become unfavourable and adults move towards the Indo-Pakistan summer breeding area.

**PAKISTAN**

Adults present on the Mekran may be augmented by a few adults from the west; however, by the end of the forecast period, numbers will decrease as conditions become unfavourable and adults move towards the Indo-Pakistan summer breeding area.

**INDIA**

Isolated adults will persist in Rajasthan and numbers are likely to increase by the end of the forecast period as adults move in from the west.

**AFGHANISTAN**

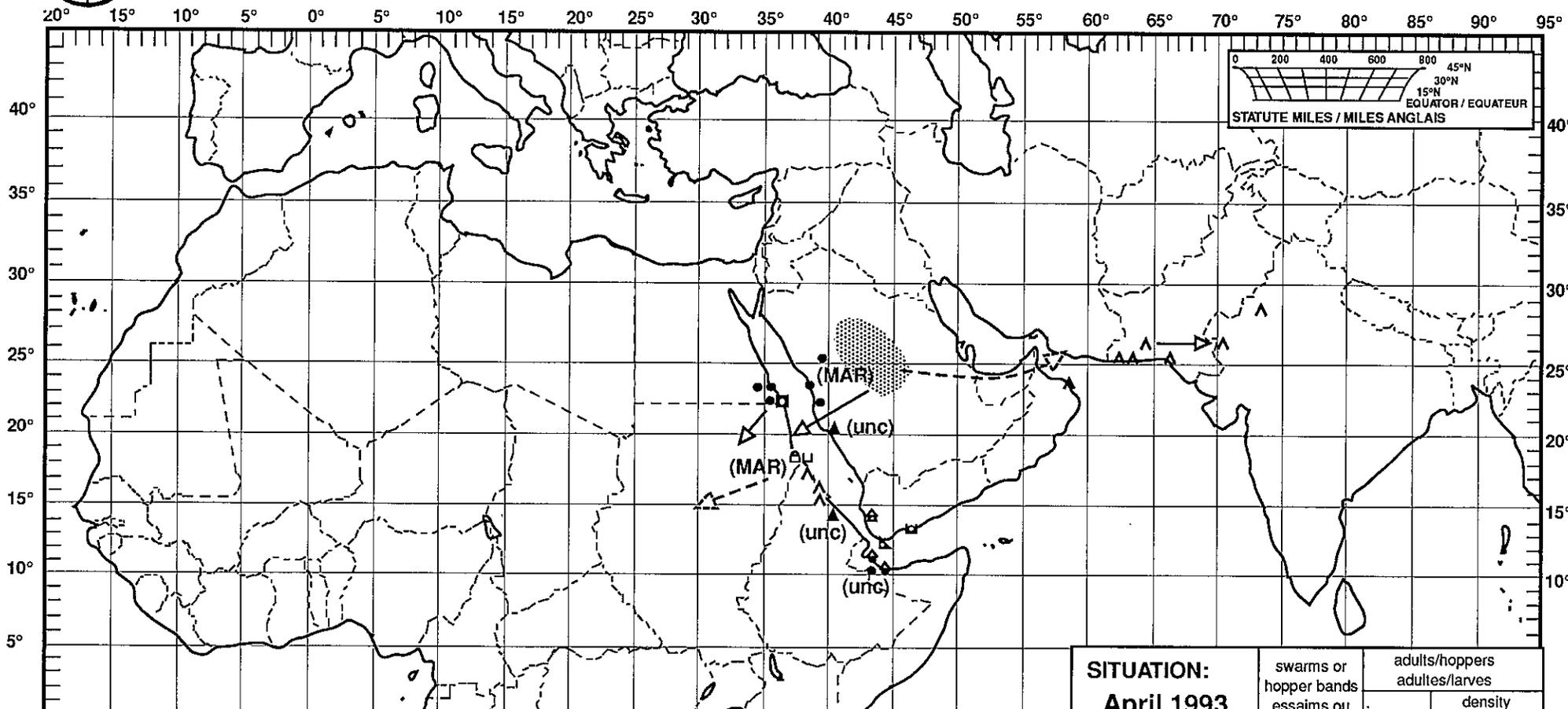
No significant developments are likely during the forecast period.

1 May 1993



# Desert Locust: summary Criquet pèlerin: situation résumée

## No. 176



**SITUATION:**  
**April 1993**  
**avril 1993**

swarms or hopper bands essaims ou bandes larvaires	adults/hoppers adultes/larves	
	in groups en groupes	density low/unknown densité faible/inconnue

<b>FORECAST TO:</b> <b>PREVISION AU: 15.6.93</b>	<b>LIKELY PROBABLE</b>	<b>POSSIBLE POSSIBLE</b>
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		

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)			