

## **FAO DESERT LOCUST BULLETIN No. 148**

### **GENERAL SITUATION DURING DECEMBER 1990 FORECAST UNTIL MID FEBRUARY 1991**

**The Desert Locust situation continued to remain calm during December. Control operations terminated in Tunisia in early December and there was an unconfirmed report of residual low density locusts late in the month. Breeding may start in areas of green vegetation during the forecast period. Scattered adults were reported on the southern Red Sea coast of Sudan. A late report was received of a small low density immature swarm in Rajasthan of India in early November. Control operations were undertaken and only scattered adults were reported during the first half of December.**

No significant rainfall was reported in winter breeding areas along both sides of the Red Sea during December. However, small scale breeding may occur during the forecast period in some areas of the southern coast that received rain in November. Similar numbers of adults are likely to be present on the northern coast of Sudan, in the South-Eastern Desert of Egypt, and along the Red Sea coast of Saudi Arabia and Yemen and may breed in areas which receive rain during the forecast period.

Light to moderate rainfall may have occurred on the northern Somali coast where small numbers of adults are likely to be present and breeding.

Small numbers of adults may be present in Mekran and Baluchistan of Pakistan and India as a result of earlier movements from the summer monsoon breeding area. Small scale breeding may be in progress as seasonal rains have commenced in the region.



## WEATHER AND ECOLOGICAL CONDITIONS

The month of December was characterized by periods of warm southerly winds from Morocco to Libya associated with eastward moving Mediterranean depressions, upper clouds over parts of the Sahara, and a persistent depression over the Ethiopian Highlands. The ITCZ was well to the south of the Desert Locust recession area and, as a result, no significant rain was reported to have fallen in the Sahel.

METEOSAT and ARTEMIS imagery indicated that south-west to north-east bands of upper level clouds were present over some areas of the Sahara during the first two decades of the month, primarily over Tiris-Zemmour in Mauritania, the Tademaït Plateau of central Algeria, and extending from Fezzan to the Surt coast of Libya. No significant rain is expected to have resulted from these clouds. However, some substantial clouds were present over the Adrar Souttouf and Agargar areas in the extreme south-west of Morocco on 5-6 and 12 December where light rain may have occurred. Clouds associated with a depression located over the central Sahara were present over a widespread area from eastern Algeria to southern Tunisia and western Libya on 20-24 December which may have resulted in light rain falling in some areas.

METEOSAT and ARTEMIS imagery did not indicate any significant clouds during the month along both sides of the Red Sea. Breeding conditions were reported to be favourable in only a few wadis on the southern coast of Sudan as a result of earlier rains in November. Ecological conditions in Tokar Delta were reported to be unusually dry. Breeding conditions are expected to be favourable in a few areas on the Tihama of Saudi Arabia and Yemen.

Substantial clouds were present over the northern Somali coast on 6-9 December and over the entire Bari region on the 12-13th. ARTEMIS imagery suggested that light to moderate rain may have fallen on the northern coast east of Candala and west to Karin during the first period and throughout Bari during the second. As a result, conditions are expected to be favourable for breeding in these areas.

The Bracknell model indicated that a depression persisted over Baluchistan of Iran and Pakistan during most of the month. Consequently, the first rains of the season were reported from Mekran and Baluchistan of Pakistan at Pasni, Nushki, and Kharan on 10-11 December and moderate rains fell in the Quetta, Nushki, Karachi, Uthal, Pasni, Panjgur, and Turbat areas during the last week of December. As a result, breeding conditions are expected to be improving.



## AREA TREATED IN DECEMBER 1990

India (November)	264 ha
Tunisia (to 8 December)	within an area of 13,000 ha (mixed with grasshopper species)



## WEST AFRICA

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

## NORTH-WEST AFRICA

### TUNISIA

There was an unconfirmed report of residual locust populations in the Gafsa and Kebili areas where control operations had been undertaken within an area of 13,000 ha in November and the first half of December. No further details are available.

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

## EASTERN AFRICA

### SUDAN

During the first half of December, scattered immature adults, at a density of 1-2 per ha, were reported at a few locations in the Tokar Delta including Galelama (1821N/3745E). No locusts were seen during surveys on the northern Red Sea coast from Port Sudan to Abu-Ramad.

### DJIBOUTI, ETHIOPIA, KENYA, SOMALIA, TANZANIA, and UGANDA

The locust situation was reported calm up to 15 December.

## NEAR EAST

### EGYPT

No Desert Locusts were found during surveys in the South-Eastern Desert undertaken in the first half of December.

### OMAN

No locusts were found during surveys undertaken on the southern Batinah coast, Dhahira, and Musandam areas in the first half of 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 the second half of November and in December.

### **INDIA**

A late report stated that a 2 sq. km. low density immature swarm was seen on 10 November in Jaisalmer district at Roharewala (2741N/7140E). Control operations were subsequently undertaken on 220 ha. Additional control operations were carried out against adult and hopper concentrations in Fatehgarh Sub-Tehsil of Jaisalmer district. Scattered adults were seen at several locations of Kutch Bhuj district of Gujarat and Bikaner district with a maximum density of 2,250 per sq. km. at Kunwarbet (2350N/6944E) on 3 November.

During the first half of December, scattered adults were seen at 2 locations in Bikaner district with a maximum density of 75 per sq. km. at Karnisar (2817N/7333E) on the 3rd.

**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 in western and northern regions, primarily Trarza, Tagant, Inchiri, Adrar, Dakhlet Nouadhibou, and Tiris-Zemmour.

### **MALI**

Scattered adults are likely to be present in some wadis of the Adrar des Iforas and Tamesna.

### **NIGER**

Scattered adults are likely to be present in parts of Tamesna and some wadis of Air.

### **CHAD**

Scattered adults may be present in some wadis of Tibesti.

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

No significant developments are likely and no invasions are expected.

## NORTH-WEST AFRICA

### **MOROCCO**

Small numbers of adults may be present south of the Atlas in Oued Draa and in the extreme south-western parts of the Sahara.

### **ALGERIA**

Small numbers of adults may be present in wadis of Tademait Plateau, Tidikelt Plain, Adrar N'Ahnet, and Monts du Mouydir.

### **TUNISIA**

Low density residual populations are likely to be present and will persist in the Gafsa and Kebili areas where breeding may start in areas of green vegetation during the forecast period.

### **LIBYA**

Scattered adults may be present in the Fezzan and Al Hammadat Al Hamra.

## EASTERN AFRICA

### **SUDAN**

Scattered adults will persist on the southern Red Sea coast where breeding is likely to be in progress in a few wadis. Scattered adults are likely to be present in some wadis on the northern Red Sea coast and adjacent interior areas; breeding may occur in areas that receive rain.

**ETHIOPIA**

Scattered adults may be present in some wadis along the Eritrean coast.

**SOMALIA**

Small numbers of adults are likely to be present on the northern coastal plains where breeding may be in progress.

**DJIBOUTI**

Scattered adults may be present on the coastal plains and breed in areas that receive rainfall.

**KENYA, TANZANIA, and UGANDA**

No significant developments are likely and no invasions are expected.

## NEAR EAST

**KINGDOM OF SAUDI ARABIA**

Scattered adults are likely to be present on the southern Tihama from Lith to the Yemen border where breeding may be in progress in areas of green vegetation.

**YEMEN**

Scattered adults are likely to be present on the Tihama and the coastal plains west of Aden where breeding may be in progress in areas of green vegetation. Scattered adults may be present in Lahij, Shebawa, and Saiyun areas.

**EGYPT**

Scattered adults may be present in the South-Eastern Desert where they will breed in areas of green vegetation.

**OMAN**

Scattered adults may be present on the Batinah coast.

**UAE**

Scattered adults may be present on the coast of Fujairah.

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

No significant developments are likely and no invasions are expected.

## SOUTH-WEST ASIA

**PAKISTAN**

Small numbers of adults are likely to be present in Baluchistan and Mekran. Isolated adults will persist in Cholistan and Tharparkar deserts.

**INDIA**

Isolated adults will persist in some areas of Rajasthan.

**IRAN**

Scattered adults may be present in some areas of Sistan and Baluchistan provinces.

**AFGHANISTAN**

No significant developments are likely and no invasions are expected.

	<b>ANNOUNCEMENTS</b>
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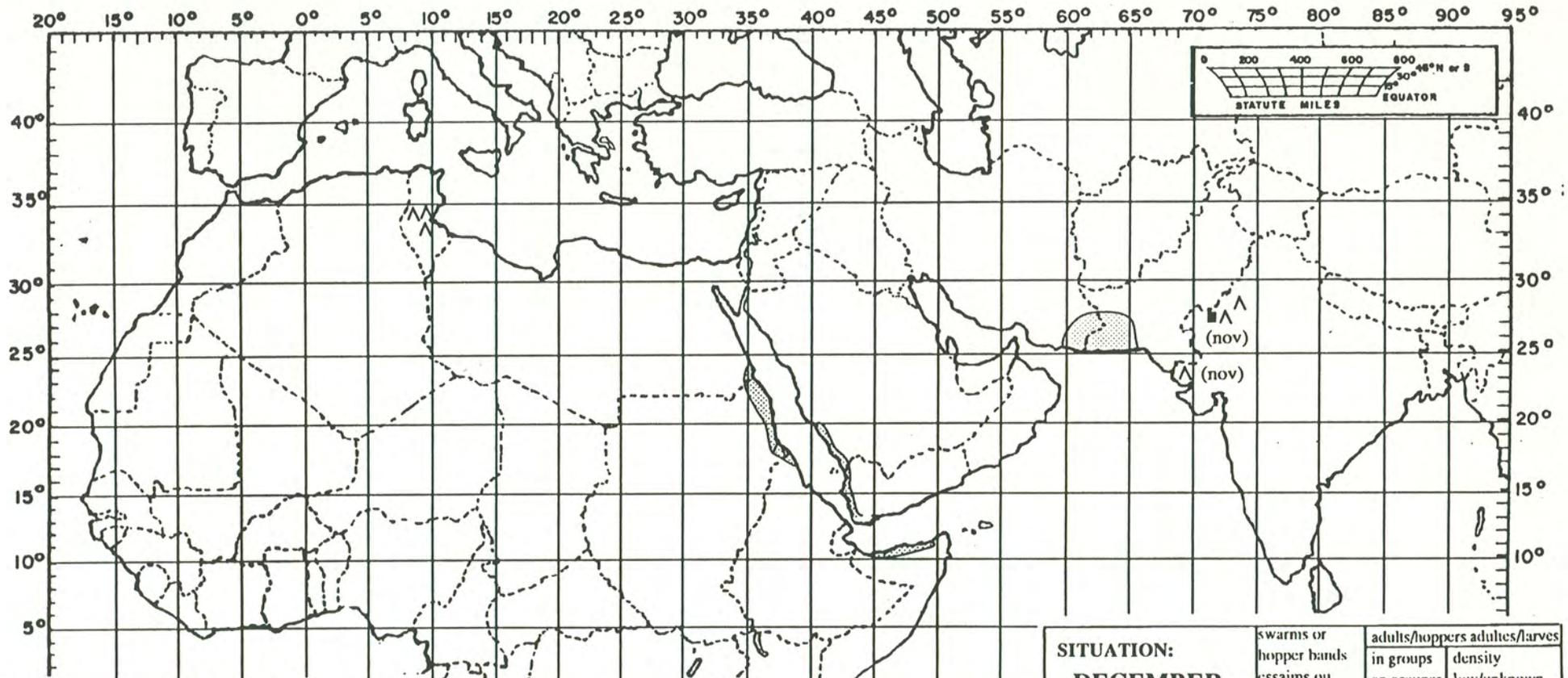
As mentioned in the previous Desert Locust Bulletin No. 147, the Director-General of FAO has decided to close the Emergency Centre for Locust Operations (ECLO) effective 31 December 1990 since the grasshopper and locust situation has now reached normal proportions and the required surveillance and control activities can be carried out through the existing structures. Any outstanding activities as of that date will be implemented under the existing Regular Programme procedures. All locust-affected countries should **continue** to send locust survey and control information to ***FAO Locusts, Other Migratory Pests, and Emergency Operations Group*** using the same telex and fax numbers as before. The FAO Desert Locust Bulletin will continue to be published monthly.

*3 January 1991*



# Desert Locust: summary Criquet Pèlerin: situation résumée

No. 148



FORECAST TO: PREVISION AU: 15.2.91	LIKELY / PROBABLE	POSSIBLE POSSIBLE
current undetected breeding / reproduction en cours non détectées		
major swarm(s) / essaim(s) importantant(s)		
minor swarm(s) / essaim(s) limité(s)		
non swarm / aîlés non essaimant		

SITUATION: DECEMBER 1990	swarms or hopper bands essaims ou bandes larvaires	adults/hoppers in groups en groupes	density low/unknown densité faible/inconnue
	immature adults aîlés immatures	■	□
mature or partly mature adults aîlés matures ou partiellement matures	▲	◻	◻
adults, maturity unknown aîlés, maturité inconnue	▲	△	△
egg laying or eggs pontes ou œufs	▼	▽	▽
hoppers larves	●	○	◐
hoppers & adults (combined symbol example) larves & adultes (exemple de symbole combiné)	◻	◻	◻