

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 273
(6 July 2001)



General Situation during June 2001 Forecast until mid-August 2001

There were no significant developments in the Desert Locust situation which continued to remain calm during June. Solitarious adults were present in Egypt and low numbers of adults appeared in the summer breeding areas along the Indo-Pakistan border where the monsoon rains began at mid month. Ecological conditions have become favourable in parts of the Sahel in West Africa and Sudan where seasonal rains have started. Small scale breeding is expected during the forecast period in West Africa, Sudan and on both sides of the Indo-Pakistan border.

Western Region. No locusts were reported in the Region. Seasonal rains have started in the summer breeding areas of West Africa from south-eastern Mauritania to Tamesna, Niger. The rains that fell during June are thought to be sufficient for conditions to be favourable for breeding in most of these areas. As locust numbers are extremely low, it will take several generations before they build up to significant levels. This will depend on the continuation of rains during the summer in the breeding areas.

Central Region. A mixture of African Migratory Locust, grasshoppers and a few Desert Locusts were treated in agricultural areas in the Western Desert of

Egypt during June. Elsewhere, good rains fell in the summer breeding areas of Sudan where conditions are becoming favourable. There is a slight possibility that locusts are present and breeding on a small scale in the interior of Yemen where heavy rains fell in May. In northern Somalia, breeding conditions remained favourable.

Eastern Region. Low numbers of solitarious adults appeared in the summer breeding areas of Pakistan near the Indian border during the second week of June which coincided with the arrival of the monsoon in Rajasthan, India and in adjacent desert areas in Pakistan. Breeding conditions are favourable earlier than usual this year due to pre-monsoon rains in May and the monsoon rains that fell during June. As a result, small scale breeding is expected to occur over a large area but it will take several generations before locust numbers increase to significant levels.

The FAO Desert Bulletin is issued monthly, supplemented by Updates during periods of increased Desert Locust activity, and is distributed by fax, e-mail, FAO pouch and airmail by the Locusts and Other Migratory Pests Group, AGP Division, FAO, 00100 Rome, Italy. It is also available on the Internet.

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Weather & Ecological Conditions in June 2001

Summer rains have started in the southern Sahel of West Africa and Sudan where conditions are favourable for breeding. In South-West Asia, the monsoon arrived along the Indo-Pakistan border where breeding conditions are favourable earlier than usual.

In **West Africa**, the Inter-Tropical Convergence Zone (ITCZ) oscillated around 15°N over Mauritania and between 15-20°N over Mali and Niger during June. As a result, the first rains of the summer began in the southern Sahel. In Mauritania, light rainfall started during the second week in the two Hodhs, extending to parts of Brakna, Assaba and Tagant during the last week of June. Sufficient rainfall was received in the southern parts of the two Hodhs for conditions to become favourable for breeding. In Mali, limited cold cloud activity started during the first dekad over central Mali between Tombouctou and Gao, extending to the Adrar des Iforas at mid month. Enough rains probably fell to allow breeding near Gao and in parts of the Adrar des Iforas. In Niger, cold clouds started to be present over southern Tamesna during the first dekad, reaching parts of the Air towards the end of the month. Light rains were reported at Tahoua and Agadez, and conditions are expected to be favourable for breeding in southern Tamesna. In Chad, cold cloud activity started in Biltine during the third dekad.

In **North-West Africa**, hot and dry conditions prevailed throughout the region except for isolated light showers in a few places of central and southern Algeria where temperatures reached 47°C. Ecological conditions were not favourable for breeding.

Correction: The report in Bulletin 272 that 70 mm of rain had fallen in Kufra, Libya was an error. No rain has fallen in this area at all.

In **Eastern Africa**, light rains continued to fall in the summer breeding areas of Sudan south of 15°N in Northern Kordofan and Northern Darfur where ecological conditions are expected to be improving. In the western lowlands of Eritrea, ecological conditions

could start to improve in a few places as a result of run-off from the highlands where summer rains commenced during the last week of June. In Ethiopia, moderate rains fell at Dire Dawa during the last dekad of June while dry conditions persisted in the Ogaden. In Northern Somalia, light showers fell in a few places on the escarpment where conditions continued to remain favourable for breeding.

In the **Near East**, dry and hot conditions persisted throughout the Region. Only light rains fell in a few places in the interior of Saudi Arabia, in northern Oman, and on the southern coastal plains of the Red Sea in Yemen. Consequently, ecological conditions remained unfavourable for breeding in most areas with the possible exception of the interior in Yemen between Marib and Shabwah where heavy rains fell in May.

In **South-West Asia**, the monsoon reached Rajasthan, India during the second week of June bringing good rains to Phalodi (86 mm), Jodhpur (70 mm), and Shergarh (15 mm) while less rainfall was reported from Bikaner. Combined with the pre-monsoon showers in May, ecological conditions have become favourable for breeding earlier than usual over a large area of Rajasthan. In Pakistan, the monsoon arrived by mid June in the desert areas bordering India where Mirpurkhas reported 26 mm. Breeding conditions from Tharparkar to Cholistan are favourable earlier this year than in most due to monsoon rains as well as pre-monsoon showers during May.



Area Treated

Egypt 1,500 ha¹ (June)

¹ mainly Migratory Locust and grasshoppers mixed with some Desert Locust



Desert Locust Situation and Forecast

(see also the summary on the first page)

WEST AFRICA

Mauritania

• SITUATION

No locusts were reported and no surveys were carried out in June.

• FORECAST

Isolated adults are likely to be present in parts of southern and south-eastern Mauritania where small

scale breeding will occur in areas of recent rainfall. It is expected that it will take several generations of breeding before locust numbers increase to significant levels.

Mali

- **SITUATION**

No reports received.

- **FORECAST**

Low numbers of adults are likely to be present in a few areas of the Adrar des Iforas where breeding could commence in places that have recently received rainfall.

Niger

- **SITUATION**

No locusts were seen during an aerial survey of Tamesna on 24 May and during a ground survey in southern Tamesna on 8 June.

- **FORECAST**

A few isolated adults are likely to be present in parts of Air and Tamesna. Small scale breeding could occur in parts of southern Tamesna. No significant developments are expected.

Chad

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.

Senegal

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.

Burkina Faso, Cape Verde, Gambia, Guinea Bissau, and Guinea Conakry

- **FORECAST**

No significant developments are likely.

NORTH-WEST AFRICA

Algeria

- **SITUATION**

No locusts were reported during June.

- **FORECAST**

No significant developments are likely.

Morocco

- **SITUATION**

No locusts were reported during June.

- **FORECAST**

No significant developments are likely.

Libyan Arab Jamahiriya

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.

Tunisia

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.

EASTERN AFRICA

Sudan

- **SITUATION**

No locusts were reported and no surveys were carried out in June.

- **FORECAST**

Low numbers of adults may be present in parts of Northern Kordofan and Northern Darfur where small scale breeding could occur in areas of recent rainfall.

Eritrea

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.

Somalia

- **SITUATION**

A few immature adults were seen south of Hargeisa at Bahadamal (0900N/4415E) on 30 May. No other locusts were seen during surveys carried out on the escarpment near Hargeisa and Borama on 27-31 May.

- **FORECAST**

Scattered locusts may persist in a few areas of the escarpment and breed in those places that have recently received rainfall. No significant developments are likely.

Ethiopia

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.



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Djibouti

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.

Kenya, Tanzania and Uganda

- **FORECAST**

No significant developments are likely.

NEAR EAST

Saudi Arabia

- **SITUATION**

No locusts were reported during June in the interior and along the Red Sea coastal plains.

- **FORECAST**

No significant developments are likely.

Yemen

- **SITUATION**

No locusts were reported and no surveys were carried out in June.

- **FORECAST**

A few adults may be present and could breed on a limited scale in the interior between Marib and Shabwah.

Egypt

- **SITUATION**

During June, isolated immature adults persisted at seven locations on the Red Sea coastal plains and subcoastal areas near Halaib. Control operations treated 1500 ha of hoppers and immature adults in crops at Sh. Oweinat (2240N/2845E) as well as at one farm in Bahariya Oasis at El Heiz (2802N/2838E). It is likely that the El Heiz infestations consisted primarily of grasshoppers while those at Sh. Oweinat were probably Migratory Locust and grasshoppers mixed with a few Desert Locust.

- **FORECAST**

Low numbers of Desert Locust are likely to persist and become mixed with other species in agricultural areas of Sh. Oweinat and may appear in Tushka. Locust numbers will decline on the Red Sea coast.

Kuwait

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.

Oman

- **SITUATION**

No locusts were reported and no surveys were carried out in June.

- **FORECAST**

No significant developments are likely.

United Arab Emirates

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.

Bahrain, Iraq, Israel, Jordan, Qatar, Syria Arab Republic and Turkey

- **FORECAST**

No significant developments are likely.

SOUTH-WEST ASIA

Iran

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.

Pakistan

- **SITUATION**

During the first half of June, low numbers of solitary adults moved from the spring breeding areas of Baluchistan east towards the summer breeding areas along the Indo-Pakistan border where immature adults were first reported on the 7th at Tamachi Tower (2804N/7133E). During the second week of the month, more adults were reported scattered throughout the summer breeding areas between Tharparkar and Cholistan at a total of 12 locations with densities of 1-5 per ha. In addition, isolated adults were present in the Las Bela area west of Karachi.

- **FORECAST**

Small scale breeding will occur in areas of recent rainfall from Tharparkar to Cholistan. Consequently, locust numbers are expected gradually to increase but remain at non-threatening levels during the forecast period.

India

- **SITUATION**

No locusts were reported during surveys carried out in Rajasthan from 23 May to 18 June.

- **FORECAST**

Low numbers of adults may already be present or will appear in Rajasthan near the Pakistan border be-

tween Barmer, Jaisalmer and Bikaner and lay on a small scale in areas of recent rainfall.

Afghanistan

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.



Other Locust species

Madagascar

Malagasy Migratory Locust (*Locusta migratoria cap-ito*). Despite a late report confirming that the situation was under control at the end of May, scattered residual populations of solitary and *transiens degregans* locusts still exist in some parts of the central and eastern regions of the outbreak area at densities of 50-500 locusts per ha. Laying during June may lead to an increase in locust numbers by the beginning of the next rainy season in November and further control operations could be required.

Red Locust (*Nomadacris septemfasciata*). At the end of May, adults were already in diapause in the south while, in the north where temperatures and humidity were higher, adults were not yet in diapause and were forming groups in the valleys. These groups represent a direct threat to cultivated areas.

The populations of these two locusts species will be carefully monitored during the upcoming dry season.

China

For the fourth consecutive year, an outbreak of Migratory Locust (*Locusta migratoria migratoria*) has developed in Xinjiang Region, western China. An outbreak of Tibetan locust (*Locusta migratoria burmana*) was reported in Tibet. Both outbreaks are said to have caused some damage to agricultural production.

Grasshopper infestations were reported from 11 provinces in Inner Mongolia, Xinjiang, Heilongjiang, Qinghai and other areas of northern China. The highest densities were present in Yellow River, Huai River and Hai River valleys.

The Government has organized a control campaign, establishing a Grasshopper and Locust Prevention Office. Since early June, action has been taken to prevent crop damage. Over US\$ 3 million has been allocated to support the campaign and more funds will be further mobilized.

Russia

A locust outbreak developed in northern Dagestan during June in the flood plain of the Kuma River. An estimated 72,000 ha have been affected in Tarumsky district and an additional 260,000 ha are threatened in the Stravropol region. Most of the infestations consist of high numbers of hoppers. Ground and aerial control operations are in progress.

Peru

Two northern departments, Lambayeque and Cajamarca, continue to be infested by gregarious populations of *Schistocerca interrita*. The extension of the plague is particularly important in the latter area where primarily fifth instar hoppers, at densities up to 500 hoppers/m², fledglings and young adults were present in 14 districts of three provinces by the end of June. Damage by hopper bands was reported on maize, wheat and peas. Physical and chemical control, limited by the terrain, are in progress.

Compared to last year, the areas infested have progressed 60 km further east, and laying and hatching occurred two months earlier while hopper emergence was only 10 days earlier. This year's laying occurred at higher elevations, up to 1,200 m ASL, and in a wider range of habitats when compared to last year. FAO is providing TCP support to the national plant protection service.



Announcements

Locust reporting. Affected countries are kindly reminded to make sure that locust situation reports are sent to FAO HQ by the 25th day of the month so the information can be included in the FAO bulletin for the current month; otherwise, it will not appear until the following month. Reports should be sent even if no locusts were found or if no surveys were conducted.

Reporting by email. Affected countries are encouraged to send completed *FAO Desert Locust Survey and Control Forms* with a brief interpretation of the results by email to eclo@fao.org.



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Glossary of terms

The following special terms are used in the Desert Locust Bulletin when reporting locusts:

NON-GREGARIOUS ADULTS AND HOPPERS

ISOLATED (FEW)

- very few present and no mutual reaction occurring;
- 0 - 1 adult/400 m foot transect (or less than 25/ha).

SCATTERED (SOME, LOW NUMBERS)

- enough present for mutual reaction to be possible but no ground or basking groups seen;
- 1 - 20 adults/400 m foot transect (or 25 - 500/ha).

GROUP

- forming ground or basking groups;
- 20+ adults/400 m foot transect (or 500+/ha).

ADULT SWARM AND HOPPER BAND SIZES

VERY SMALL

- swarm: less than 1 km² • band: 1 - 25 m²

SMALL

- swarm: 1 - 10 km² • band: 25 - 2,500 m²

MEDIUM

- swarm: 10 - 100 km² • band: 2,500 m² - 10 ha

LARGE

- swarm: 100 - 500 km² • band: 10 - 50 ha

VERY LARGE

- swarm: 500+ km² • band: 50+ ha

RAINFALL

LIGHT

- 1 - 20 mm of rainfall.

MODERATE

- 21 - 50 mm of rainfall.

HEAVY

- more than 50 mm of rainfall.

OTHER REPORTING TERMS

BREEDING

- the process of reproduction from copulation to fledging.

SUMMER RAINS AND BREEDING

- July - September/October

WINTER RAINS AND BREEDING

- October - January/February

SPRING RAINS AND BREEDING

- February - June/July

DECLINE

- a period characterised by breeding failure and/or successful control leading to the dissociation of swarming populations and the onset of recessions; can be regional or major.

OUTBREAK

eLocust. Details of a new system under evaluation for recording and transmitting locust survey and control data collected in the field can be found on the internet at:

<http://www.fao.org/news/2001/010601-e.htm>

Upcoming meetings. The following meetings are scheduled:

- 36th session of the DLCC, 24-28 September 2001 (Rome) which coincides with the 50th anniversary of FAO's involvement in Desert Locust management
- 9th EMPRES Liaison Officers Meeting, 13-18 October 2001 (Khartoum)
- 4th EMPRES Consultative Committee Meeting, 15-17 January 2002 (Cairo)
- 23rd session of the FAO Commission for Desert Locust Control in the Central Region (CRC), 26-30 January 2002 (Damascus)

Pesticide Referee Group. As no submissions have been received, the 9th meeting is postponed to next year.

New appointments. We are pleased to announce the selection of Mr. Christian Pantenius as the new EMPRES Field Coordinator for the Central Region and Mr. Munir Boutrous as the new Secretary of the Commission for Controlling the Desert Locust in the Central Region. Both of these persons will be based in Cairo.

Central Region Commission. The Government of Djibouti has confirmed their acceptance to become the 13th member of the Central Region Commission.

North-West Africa Commission. The report of the 23rd session recently held in Algiers is available on the internet at:

<http://www.fao.org/news/global/locusts/pdfs/meetings/CLCPANO23f.pdf>

- a marked increase in locust numbers due to concentration, multiplication and gregarisation which, unless checked, can lead to the formation of hopper bands and swarms.

UPSURGE

- a period following a recession marked initially by a very large increase in locust numbers and contemporaneous outbreaks followed by the production of two or more successive seasons of transient-to-gregarious breeding in complimentary seasonal breeding areas in the same or neighbouring Desert Locust regions.

PLAGUE

- a period of one or more years of widespread and heavy infestations, the majority of which occur as bands or swarms. A major plague exists when two or more regions are affected simultaneously.

RECESSION

- period without widespread and heavy infestations by swarms.

REMISSION

- period of deep recession marked by the complete absence of gregarious populations.



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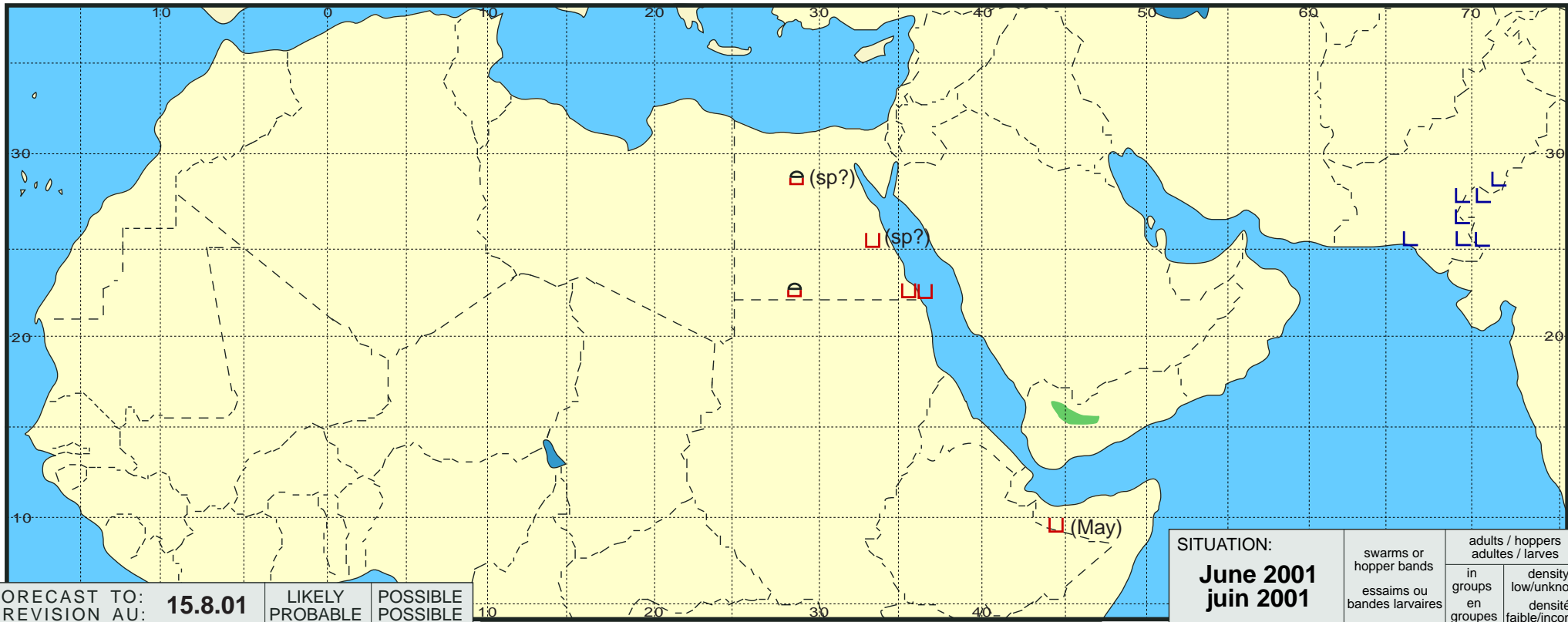
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Desert Locust Summary

Criquet pèlerin - Situation résumée

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FORECAST TO: PREVISION AU:	15.8.01	LIKELY PROBABLE	POSSIBLE POSSIBLE
favourable breeding conditions conditions favorables à la reproduction			
major swarm(s) essaim(s) important(s)			
minor swarm(s) essaim(s) limité(s)			
non swarming adults adultes non essaimant			

SITUATION: June 2001 juin 2001	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)			