

warning level: CALM

# DESERT LOCUST BULLETIN

# **FAO Emergency Centre for Locust Operations**



No. 382

(3 August 2010)



# General Situation during July 2010 Forecast until mid-September 2010

The Desert Locust situation remained calm during July. Small infestations of solitarious adults were treated in central Algeria. Scattered adults are likely to be present in parts of the summer breeding areas in the northern Sahel between Mauritania and Eritrea, in the interior of Yemen and on both sides of the Indo-Pakistan border. As widespread good rains fell in July, small-scale breeding during the forecast period will cause locust numbers to increase slightly but remain below threatening levels. All efforts should be made to conduct regular surveys during the next few months to monitor the situation.

Western Region. Good rains fell throughout the summer breeding areas in the northern Sahel between Mauritania and Chad. Although no surveys were carried out and no locusts were reported, scattered solitarious adults are almost certainly present in parts of southern Mauritania, northern Mali, northern Niger and eastern Chad. During the forecast period, small-scale breeding will cause locust numbers to increase slightly but remain below threatening levels. In Northwest Africa, ground control was carried out against 100 ha of solitarious adults in central Algeria. No locusts were reported elsewhere in the region.

**Central Region.** Good rains fell throughout the summer breeding areas in **Sudan**, **Eritrea** and parts of **Yemen**. Scattered solitarious adults were seen in northern Sudan and are likely to be present in Eritrea and Yemen but ground surveys could not be

undertaken to confirm this. During the forecast period, small-scale breeding will cause locust numbers to increase slightly but remain below threatening levels. No locusts were reported elsewhere in the region.

**Eastern Region.** Despite good monsoon rains and intensive surveys, no locusts were reported in the summer breeding areas in Rajasthan, **India**. Nevertheless, low numbers of solitarious adults are likely to be present in some places as well as in adjacent areas of Tharparkar and Cholistan in **Pakistan**. Small-scale breeding is expected to occur during the forecast period in both countries.

The FAO Desert Locust Bulletin is issued every month by the Desert Locust Information Service, AGP Division (Rome, Italy). It is supplemented by Alerts and Updates during periods of increased Desert Locust activity. All products are distributed by e-mail and made available on the Internet.

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# DESERT LOCUST BULLETIN



# Weather & Ecological Conditions in July 2010

Good rains fell throughout the summer breeding areas of the Sahel in West Africa and Sudan, causing ecological conditions to improve and become favourable for breeding in most areas. Good rains also fell along both sides of the Red Sea, in the interior of Yemen and along the Indo-Pakistan border.

In the Western Region, the Inter-Tropical Convergence Zone (ITCZ) continued to move progressively northwards during July, oscillating near 18N in West Africa. It was slightly further north than usual over northeastern Mali, Niger and Chad. Consequently, good rains fell in most of the northern Sahel giving rise to favourable breeding conditions. In Mauritania, good rains fell in the south between Nouakchott and Nema while heavier showers occurred in Aguilal Faye and east of Nema during the first decade, and near Tmeimichat and east of Ouadane in the second decade. In Mali, rains commenced near Tombouctou in the first decade and Timetrine in the second decade while good rains fell most of the month in the Adrar des Iforas and the Tamesna. In Niger, heavy rains fell in the central Tamesna and southern Air during the first decade, and good rains fell during the remainder of July in the Tamesna. In Chad, good rains fell as far north as Faya and Fada during the second decade, including parts of Tibesti, and rains fell during most of the month in the east. Mainly dry conditions prevailed in Northwest Africa, except in southern Algeria where good rains fell near the Mali border and vegetation was green or becoming green near Tamanrasset.

In the **Central Region**, the ITCZ was located further north than usual over Sudan during July. This allowed rains to continue to fall in the summer breeding areas where conditions were already favourable in some places west of the Nile. During the second decade, heavy showers occurred over the northern portion of Darfur, Kordofan, Khartoum and Kassala states, while good rains fell as far north as the Baiyuda Desert and northwest Sudan. This will cause breeding conditions to become favourable over a relatively large area. The

heavy rainfall during the second decade extended to all parts of Eritrea and covered the Red Sea coast from Jeddah, Saudi Arabia to Mocca, Yemen. Lighter rain fell over the Harar Highlands and near Dire Dawa in eastern Ethiopia, the plateau of northwestern Somalia near Boroma, and in the summer breeding areas in the interior of Yemen. In northern Oman, good rains fell in the interior between Buraimi and Adam. Good rains fell in parts of southeastern Egypt near Allaqi at mid-month.

In the **Eastern Region**, good rains associated with the seasonal monsoon fell in the summer breeding areas along both sides of the Indo-Pakistan border during July. Although most of the rains occurred during the first decade, enough rain has fallen to allow small-scale breeding to take place.



# **Area Treated**

Algeria

100 ha (July)



( see also the summary on page 1 )

#### **WESTERN REGION**

#### Mauritania

SITUATION

No surveys were carried out and no locusts were reported during July.

# • FORECAST

Low numbers of solitarious adults are almost certainly present in parts of the south, and small-scale breeding may have already commenced in those areas that received rain in late June and early July. During the forecast period, small-scale breeding will cause locust numbers to increase gradually in the southern and central areas.

#### Mali

# • SITUATION

No surveys were carried out and no locusts were reported during July.

## • Forecast

Isolated adults are likely to be present in parts of the Adrar des Iforas, Tilemsi Valley and Tamesna where small-scale breeding may have already commenced in some places. During the forecast period, small-scale breeding will cause locust numbers to increase gradually in these areas and perhaps in parts of Timetrine and Tombouctou.

# Niger

#### • SITUATION

No surveys were carried out and no locusts were reported during July.

# Forecast

Isolated adults are almost certainly present in parts of the Tamesna and small-scale breeding may have already commenced in areas of recent rainfall. During the forecast period, small-scale breeding will cause locust numbers to increase gradually in the Tamesna and near Tanout.

#### Chad

# • SITUATION

No surveys were carried out and no locusts were reported during July.

#### • FORECAST

Low numbers of adults are likely to be present in parts of the east between Abeche and Fada, and perhaps in some places of Kanem and Batha. Small-scale breeding is expected to occur in areas of recent rainfall, causing locust numbers to increase slightly but remain below threatening levels.

#### Senegal

## • SITUATION

No surveys were carried out and no locusts were reported during June and July.

### • Forecast

No significant developments are likely.

Benin, Burkina Faso, Cameroon, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Nigeria, Sierra Leone and Togo

#### • FORECAST

No significant developments are likely.

## **Algeria**

# • SITUATION

During the last week of June, isolated immature solitarious adults were seen at four places in the south near Tamanrasset (2250N/0528E).

During July, ground teams treated 100 ha of immature solitarious adults at two places about 400 km north of Tamanrasset at Tahihaouet (ca. 2636N/0681E). No locusts were seen near Tamanrasset and Adrar (2753N/0017W).

# • FORECAST

Scattered adults are likely to persist in a few places near Tamanrasset. Locust numbers may increase slightly in the extreme south if small-scale breeding occurs in areas of recent rainfall near the borders of Mali and Niger.

#### Morocco

#### • SITUATION

No surveys were carried out and no locusts were reported during July.

# • FORECAST

No significant developments are likely.

### Libyan Arab Jamahiriya

#### SITUATION

No locusts were seen during surveys carried out in the last decade of July in the centre of the country east of Sabha (2704N/1425E) near Al Harouj Al Aswad (ca. 2630N/1630E).

#### • Forecast

Low numbers of locusts are likely to persist in parts of the southwest near Ghat.

# **Tunisia**

#### • SITUATION

No surveys were carried out and no locusts were reported during July.

#### • FORECAST

No significant developments are likely.

# **CENTRAL REGION**

#### Sudan

#### • SITUATION

During July, surveys were carried out in the summer breeding areas and scattered mature solitarious adults were seen in the north near Merowe (1830N/3149E). Further details are awaited.

### • Forecast

Scattered adults are almost certainly present in parts of West and North Darfur, West and North Kordofan, White Nile, River Nile, Northern and Kassala states where small-scale breeding will cause locust numbers to increase during the forecast period.

# **Eritrea**

# • SITUATION

No reports were received during July.

# • FORECAST

Scattered adults are almost certainly present in the summer breeding areas of the western lowlands. During the forecast period, small-scale breeding will cause locust numbers to increase slightly in areas of recent rainfall.



No. 382



# DESERT LOCUST BULLETIN

# **Ethiopia**

# • SITUATION

No locusts were seen during surveys carried out in July in northeastern Tigray and near Dire Dawa (0935N/4150E).

#### Forecast

Isolated adults may be present and could persist in the Aysha area.

## Djibouti

#### • SITUATION

No surveys were carried out and no locusts were reported during July.

#### • FORECAST

No significant developments are likely.

#### Somalia

#### • SITUATION

During July, no locusts were seen during surveys carried out on the northwest escarpment between Hargeisa (0931N/4402E) and the Djibouti border, and on the coastal plains from the Djibouti border to Lughaye (1041N/4356E).

# • Forecast

Low numbers of solitarious adults may be present in parts of the plateau between Boroma and Burao where small-scale breeding could occur in areas of recent rainfall.

## **Egypt**

# • SITUATION

No surveys were carried out and no locusts were reported during July.

# • FORECAST

No significant developments are likely.

# Saudi Arabia

# • SITUATION

No locusts were seen during surveys carried out on the Red Sea coast and in the interior during July.

# • Forecast

Scattered adults may appear in areas of recent rainfall on the Red Sea coast near Qunfidah and Jizan. No significant developments are likely.

#### Yemen

#### • SITUATION

No surveys were carried out and no locusts were reported during July.

# • FORECAST

Scattered adults are almost certainly present in the summer breeding areas of the interior between Marib and Hadhramaut. During the forecast period, small-scale breeding will cause locust numbers to increase slightly in areas of recent rainfall.

#### Oman

# • SITUATION

No locusts were seen during surveys in Dakhliya and Buraimi regions in July.

#### • FORECAST

Small-scale breeding is likely to occur in those areas of Sharqiya that received heavy rainfall from Cyclone Phet, causing locust numbers to increase slightly. Regular monitoring is recommended.

# Bahrain, Iraq, Israel, Jordan, Kenya, Kuwait, Lebanon, Palestine, Qatar, Syria, Tanzania, Turkey, Uganda and UAE

#### Forecast

No significant developments are likely.

## **EASTERN REGION**

### Iran

## • SITUATION

No reports were received during July.

## • Forecast

No significant developments are likely.

#### **Pakistan**

# • SITUATION

No reports were received during July.

# Forecast

Low numbers of solitarious adults are likely to be present in parts of the summer breeding areas in Cholistan and Tharparkar where small-scale breeding will cause locust numbers to increase slightly during the forecast period.

# India

# • SITUATION

No locusts were seen during intensive surveys carried out during July in the summer breeding areas in Rajasthan and Gujarat.

#### • Forecast

Low numbers of solitarious adults are likely to be present in parts of the summer breeding areas in Rajasthan and Gujarat where small-scale breeding will cause locust numbers to increase slightly during the forecast period.

# **Afghanistan**

• SITUATION

No reports received.

• Forecast

No significant developments are likely.



Desert Locust warning levels. A colour-coded scheme indicates the seriousness of the current Desert Locust situation: green for *calm*, yellow for *caution*, orange for *threat* and red for *danger*. The scheme is applied to the Locust Watch web page and to the monthly bulletin's header. The levels indicate the perceived risk or threat of current Desert Locust infestations to crops and appropriate actions are suggested for each level.

Locust reporting. During calm (green) periods, countries should report at least once/month and send RAMSES data with a brief interpretation. During caution (yellow), threat (orange) and danger (red) periods, often associated with locust outbreaks, upsurges and plagues, RAMSES output files with a brief interpretation should be sent at least twice/week within 48 hours of the latest survey. Affected countries are also encouraged to prepare decadal bulletins summarizing the situation. All information should be sent by e-mail to the FAO/ECLO Desert Locust Information Service (eclo@fao.org). Information received by the end of the month will be included in the FAO Desert Locust 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.

**Google group.** FAO DLIS has established a Google group for national locust information officers to exchange opinions and share experiences regarding data management and analysis, GIS, eLocust2, eLocust2Mapper and satellite imagery. Interested information officers should contact DLIS (eclo@fao. org) for details.

MODIS imagery. Columbia University's International Research Institute for Climate and Society (IRI) provides 16-day 250-metre resolution MODIS imagery as well as daily and decadal rainfall imagery for monitoring breeding conditions in the Desert Locust recession area. These products can be downloaded in different formats suitable for GIS at: http://iridl.ldeo.columbia.edu/maproom/.Food\_ Security/.Locusts/index.html. The site is available in English and French. Address comments and questions to Pietro Ceccato (pceccato@iri.columbia.edu).

New information on Locust Watch. Recent additions to the web site (www.fao.org/ag/locusts) are:

- 2010 Iran/Pakistan Joint Survey report.
   Publications Section Reports
- Desert Locust situation updates. Archives Section – Briefs
- Desert Locust risk map update. Archives Section – Risk maps

**2010 events.** The following activities are scheduled or planned:

- **CRC training.** 3<sup>rd</sup> regional aerial Desert Locust training course, Moshi, Tanzania (2-6 Aug)
- CRC. 31<sup>st</sup> session of Executive Committee and 27<sup>th</sup> session of Commission, Beirut, Lebanon (20-24 Sep)
- **EMPRES/WR.** Desert Locust Master Trainers (Survey) regional workshop, Mauritania (Oct)
- SWAC. 27<sup>th</sup> session, Islamabad, Pakistan (14-16 Dec)
- EMPRES/WR. 6<sup>th</sup> Steering Committee meeting and 9<sup>th</sup> EMPRES Liaison Officers meeting, Tripoli, Libya (Dec)



# **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 km<sup>2</sup> • band: 1 - 25 m<sup>2</sup>

• swarm: 1 - 10 km<sup>2</sup> • band: 25 - 2,500 m<sup>2</sup>



No. 382

DESERT LOCUST BULLETIN



# DESERT LOCUST BULLETIN

#### MEDIUM

• swarm: 10 - 100 km<sup>2</sup>

• band: 2,500 m<sup>2</sup> - 10 ha

• swarm: 100 - 500 km<sup>2</sup>

• band: 10 - 50 ha

VERY LARGE
• swarm: 500+ km<sup>2</sup>

• band: 50+ ha

#### **RAINFALL**

LIGHT

• 1 - 20 mm of rainfall.

MODERATE

• 21 - 50 mm of rainfall.

• 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

 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.

#### **WARNING LEVELS**

GREEN

 Calm. No threat to crops. Maintain regular surveys and monitoring.

YELLOW

 Caution. Potential threat to crops. Increased vigilance is required; control operations may be needed.

ORANGE

Threat. Threat to crops. Survey and control operations must be undertaken.

 Danger. Significant threat to crops. Intensive survey and control operations must be undertaken.

#### **REGIONS**

WESTERN

 locust-affected countries in West and North-West Africa: Algeria, Chad, Libya, Mali, Mauritania, Morocco, Niger, Senegal, Tunisia; during plagues only: Burkino Faso, Cape Verde, Gambia, Guinea and Guinea-Bissau.

CENTRAL

- locust-affected countries along the Red Sea:
   Djibouti, Egypt, Eritrea, Ethiopia, Oman, Saudi
   Arabia, Somalia, Sudan, Yemen; during plagues
   only: Bahrain, Iraq, Israel, Jordan, Kenya, Kuwait,
   Qatar, Syria, Tanzania, Turkey, UAE and Uganda.
- locust-affected countries in South-West Asia: Afghanistan, India, Iran and Pakistan.



