

# DESERT LOCUST BULLETIN

### FAO Emergency Centre for Locust Operations

### General Situation during April 2015 Forecast until mid-June 2015

The Desert Locust situation continued to improve during April. Very little rain fell throughout the recession area. Only low numbers of solitarious adults remained in a few places of the winter breeding areas along both sides of the Red Sea in Sudan and Saudi Arabia. A few adults moved into the interior of northern Sudan. No control operations were conducted in April. Scattered adults were present in southeast Iran and isolated adults were seen in the central Sahara in Algeria. During the forecast period, small-scale breeding may occur in parts of the spring breeding areas in Northwest Africa and the interior of Saudi Arabia. Locust numbers will remain low and no significant developments are expected.

Western Region. The situation remained calm in April. Only a few isolated solitarious locusts were present north of the Hoggar Mountains in the central Sahara of Algeria. Limited breeding may occur in parts of the central Sahara in Algeria and south of the Atlas Mountains in **Morocco**. No significant developments are expected.

**Central Region.** The situation improved in the region during April. Low numbers of solitarious adults remained in a few places along the coast in **Sudan** and **Saudi Arabia** and no further control operations were required. A similar situation is likely on the northern and central Red Sea coast in **Eritrea**. Scattered adults were seen along the Atbara River in

the interior of northern Sudan that probably arrived from the Red Sea coastal winter breeding areas. No locusts were reported elsewhere in the Region. During the forecast period, small-scale breeding may occur in northern Sudan and in the interior of Saudi Arabia.

warning level: CALM

No. 439

(4.5.2015)

**Eastern Region.** The situation remained calm during April. Scattered solitarious adults were observed in a few places on the coast and in the interior of southeast **Iran** during the annual joint survey. No locusts were seen in adjacent areas of Baluchistan, **Pakistan**. Nevertheless, small-scale breeding may occur in areas of recent rainfall in northern Baluchistan. In the absence of locust populations, pre-monsoon rains that fell along both side of the Indo-Pakistan are not likely to have an impact on the current situation.

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 are available on the Internet. **Telephone:** +39 06 570 52420 (7 days/week, 24 hr) **Facsimile:** +39 06 570 55271 **E-mail:** eclo@fao.org Internet: www.fao.org/ag/locusts **Facebook:** www.facebook.com/faolocust **Twitter:** twitter.com/faolocust



DESERT LOCUST BULLETIN

Area Treated

3,000 ha (March, updated)



### Weather & Ecological Conditions in April 2015

Although very little rain fell during April, ecological conditions continued to improve in parts of the spring breeding areas in the interior of Saudi Arabia and were suitable for limited breeding in Northwest Africa. Elsewhere, hot and dry conditions prevailed.

In the **Western Region**, light rain fell at mid-month along the Moroccan-Algerian border south of Erfoud, Morocco. Although no significant rain fell elsewhere in the spring breeding areas of Northwest Africa, ecological conditions were favourable for small-scale breeding in parts of the Sahara in Algeria and south of the Atlas Mountains in Morocco, primarily in the northeast near Bouarfa, in the Draa and Ziz-Ghris valleys and in northern Western Sahara along W. Sakia Al Hamra. Dry and increasingly hot conditions prevailed in the northern Sahel of West Africa.

In the **Central Region**, no significant rain fell during April. Consequently, ecological conditions continued to dry out in coastal areas along both sides of the Red Sea. Breeding conditions improved in the spring breeding areas of the interior of Saudi Arabia from good rains in late March. Light rains fell over parts of the northern Somali plateau at times during the second half of April.

In the **Eastern Region**, light rain fell in the spring breeding areas in the northern parts of Baluchistan, Pakistan in April. No rain fell in adjacent areas of Iran. In Pakistan, ecological conditions were improving for breeding in northern Baluchistan and may also be favourable along the coast near Jiwani from good rains in March. In Iran, annual vegetation was green at the beginning of April in central Jaz Murian but dried out quickly. A few areas remained green on the southeast coast near Jask. Pre-monsoon rains fell in the summer breeding areas along both sides of the Indo-Pakistan border during the first half of April.



### Desert Locust Situation and Forecast

( see also the summary on page 1 )

### WESTERN REGION

- Mauritania
- SITUATION

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

• FORECAST

No significant developments are likely.

### Mali

• SITUATION

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

### • FORECAST

Low numbers of adults may be present and are expected to persist in parts of the Adrar des Iforas and Timetrine.

### Niger

• SITUATION

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

### • FORECAST

Isolated adults may be present in parts of the Air Mountains where they are likely to persist in areas that remain green. No significant developments are likely.

### Chad

SITUATION

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

• FORECAST

No significant developments are likely.

### Senegal

- SITUATION
- No reports were received during April.
- 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 April, a few solitarious fledglings were present in the central Sahara northwest of the Hoggar Mountains between In Salah (2712N/0229E) and Tamanrasset (2250N/0528E). Elsewhere, no locusts were seen during surveys carried out in the western and central Sahara near Tindouf (2741N/0811W), between Beni Abbes (3011N/0214W) and Bechar (3135N/0217W), and near Adrar (2753N/0017W) and Illizi (2630N/0825E).

### • FORECAST

Small-scale breeding may occur in a few places of the central Sahara during May but locust numbers will remain low and no significant developments are likely.

### Morocco

### SITUATION

No locusts were seen during surveys south of Erfoud (3128N/0410W) in the Ziz-Ghris Valley along the Algerian border on 30 April.

• FORECAST

Small-scale breeding may occur in a few places in Draa, Ziz-Ghris and Sakia Al Hamra valleys but locust numbers will remain low and no significant developments are likely.

### Libya

### • SITUATION

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

### • FORECAST

Isolated adults may be present in the southwest and could breed on a small scale if rainfall occurs.

### Tunisia

#### • SITUATION

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

### • FORECAST

No significant developments are likely.

### **CENTRAL REGION**

#### Sudan

### • SITUATION

By the first week of April, the situation had improved on the central and southern Red Sea coast where only low densities of immature and mature solitarious adults remained in a few places between Suakin (1906N/3719E) and Tokar (1827N/3741E), along Khor Baraka, and near Aiterba (1753N/3819E) and Karora (1745N/3820E). Locust numbers declined during the rest of the month. In the River Nile State, scattered immature and mature solitarious adults were seen in cropping areas along both sides of the Atbara River.

### • FORECAST

Scattered adults are likely to persist in and near cropping areas along the Nile and the Atbara rivers in River Nile and Northern States where small-scale breeding may occur.

### Eritrea

- SITUATION
- No reports were received in April.
- FORECAST

Low to moderate numbers of adults may be present in parts of the highlands.

### Ethiopia

SITUATION

No reports were received in April.

• FORECAST

No significant developments are likely.

### Djibouti

• SITUATION

No reports were received during April.

• FORECAST

No significant developments are likely.

### Somalia

• SITUATION

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

• Forecast

No significant developments are likely.

### Egypt

• SITUATION

During April, no locusts were seen on the Red Sea coast between Shalatyn (2308N/3535E) and the Sudan border, and along both sides of Lake Nasser.

• FORECAST

No significant developments are likely.

### Saudi Arabia

### • SITUATION

During April, a few scattered immature solitarious adults persisted on the Red Sea coast and interior near Yenbo (2405N/3802E). Scattered mature solitarious adults were present at one place in the Asir Mountains northeast of Medinah (2430N/3935E), and scattered gregarious adults were reported southwest of Gassim (2621N/4358E).



No. 439

DESERT LOCUST BULLETIN



No. 439

### DESERT LOCUST BULLETIN

### FORECAST

Small-scale breeding may occur in areas of recent rainfall in the interior near Gassim.

### Yemen

• SITUATION

No reports were received in April.

• FORECAST

No significant developments are likely.

#### Oman

### • SITUATION

During April, no locusts were seen during surveys in the northern interior west of Nizwa (2255N/5731E) in Dakhiliya region, near Buraimi (2415N/5547E), and on the Musandam Peninsula.

### • FORECAST

Unless further rainfall occurs, no significant developments are likely.

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

### • FORECAST

No significant developments are likely.

#### **EASTERN REGION**

Iran

### • SITUATION

During April, scattered mature solitarious adults were present in a few places along the southeast coast near Jask (2540N/5746E) and in the interior of the Jaz Murian Basin east of Qaleh Ganj (2731N/5752E). No locusts were seen elsewhere during the annual joint survey.

• FORECAST

Isolated adults are likely to persist in a few areas on the coast near Jask and in the Jaz Murian Basin of the interior. Breeding is unlikely unless further rainfall occurs.

### Pakistan

#### SITUATION

No locusts were seen during a joint survey in coastal and interior areas of Baluchistan in April.

### • FORECAST

Isolated adults may be present in parts of the coast and interior of Baluchistan. Small-scale breeding

may occur in areas of recent rainfall. No significant developments are likely.

### India

• SITUATION

No locusts were seen during surveys carried out in Rajasthan during April.

FORECAST

No significant developments are likely.

#### 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.

Locust tools and resources. FAO has developed a number of tools that National locust information officers and other interested individuals can use for Desert Locust early warning and management:

MODIS. Vegetation imagery every 16 days (http:// iridl.ldeo.columbia.edu/maproom/.Food\_Security/. Locusts/.Regional/.MODIS/index.html)

- MODIS. Daily rainfall imagery in real time (http:// iridl.ldeo.columbia.edu/maproom/.Food\_Security/. Locusts/index.html)
- RFE. Rainfall estimates every day, decade and month (http://iridl.ldeo.columbia.edu/maproom/. Food\_Security/.Locusts/index.html)
- Greenness maps. Dynamic maps of green vegetation evolution every decade (http://iridl. ldeo.columbia.edu/maproom/Food\_Security/ Locusts/Regional/greenness.html)
- eLocust3 training videos. A set of 15 introductory training videos are available on YouTube: https://www.youtube.com/playlist?list=P LjxRk5CAwvG\_0iFxjZ5C2fLByF3jhvHOx
- RAMSESv4 training videos. A set of basic training videos are available on YouTube: https:// www.youtube.com/playlist?list=PLjxRk5CAwvG-PximOs9ICMxzZtYU93tvb
- RAMSESv4 and eLocust3 updates. Updates can be downloaded from https://sites.google.com/ site/rv4elocust3updates/home
- FAOLOCUST Twitter. The very latest updates are posted on Twitter (http://www.twitter.com/ faolocust)
- FAOLocust Facebook. A social means of information exchange using Facebook (http:// www.facebook.com/faolocust)
- Slideshare. Locust presentations and photos available for viewing and download (http://www. slideshare.net/faolocust)
- eLERT. A dynamic and interactive online database of resources for locust emergencies (http://sites.google.com/site/elertsite)

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

- Desert Locust situation updates. Archives
- eLocust3. Activities DLIS
- RAMSESv4. Activities DLIS
- Iran/Pakistan Joint Survey report. Publications
   Reports

**<u>CLCPRO web site</u>**. The CLCPRO web site (http:// clcpro-empres.org) has been improved and updated.

**<u>2015 events</u>**. The following activities are scheduled or planned:

 CLCPRO/EMPRES-WR. Regional workshop for Desert Locust Information Officers in the Western Region, Nouakchott, Mauritania (8-12 June)



### 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

- swarm: less than 1 km<sup>2</sup> band: 1 25 m<sup>2</sup>
- SMALL

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

   MEDIUM
   10 100 h²
- 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.
- 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



No. 439

DESERT LOCUST BULLETIN



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. EASTERN
- locust-affected countries in South-West Asia: Afghanistan, India, Iran and Pakistan.

### DESERT LOCUST BULLETIN

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





