

warning level: **CAUTION (Saudi Arabia)**

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 379

(3 May 2010)



General Situation during April 2010 Forecast until mid-June 2010

The Desert Locust situation remained calm in all countries during April because of continuing poor rainfall and ecological conditions. Ground teams in Saudi Arabia treated numerous small hopper bands that arose from local breeding in one area on the Red Sea coast. Groups of adults may form in this area and move into the interior and breed. Low numbers of solitary adults were present in Morocco along the Algerian border where small-scale breeding is likely to occur in May. An isolated adult was seen in Niger and isolated hoppers and adults were present on the Gulf of Aden coast in southern Yemen. From mid-June onwards, low numbers of solitary adults could start to appear in the summer breeding areas in the northern Sahel of West Africa and Sudan, in the interior of Yemen and along both sides of the Indo-Pakistan border; however, breeding will not commence until the seasonal rains begin. No significant developments are expected during the forecast period.

Western Region. The locust situation remained calm during April. Isolated solitary adults were found at an increasing number of places in Morocco south of the Atlas Mountains and along the Algerian border. Local breeding is expected to occur in some areas during May but locust numbers will remain below threatening levels and no significant developments are expected. In Niger, an isolated solitary adult was seen near Agadez. No locusts

were reported elsewhere in the Region and ecological conditions continued to be dry and unfavourable for breeding in most areas except along the Moroccan-Algerian border. By the end of the forecast period, low numbers of solitary adults may start to appear in the summer breeding areas in southern Mauritania and, to a lesser extent, in northern Mali and Niger. Small-scale breeding will not commence until the onset of the seasonal rains in the northern Sahel.

Central Region. Local breeding occurred in one area on the Red Sea coast in Saudi Arabia during April, giving rise to numerous small hopper groups and bands. Although ground teams treated nearly 700 ha, there is a risk adults will form small groups that will move into the spring breeding areas of the interior and breed where good rains recently fell. Small-scale breeding occurred on the southern coast of Yemen. During the forecast period, low numbers of locusts could appear in the interior of Yemen where good rains fell during April. Elsewhere in the Region, no locusts were reported and no significant developments are expected during the forecast period.

Eastern Region. The locust situation remained calm during April. No locusts were reported in the spring breeding areas of western Pakistan and southeastern Iran due to dry conditions. No significant developments are expected during the forecast period.

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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Weather & Ecological Conditions in April 2010

Good rains fell in the interior of Saudi Arabia and Yemen during April while mainly dry conditions prevailed elsewhere in the Desert Locust recession area.

In the **Western Region**, light rain fell in parts of Mauritania and Algeria during April. In Mauritania, light showers fell during the second half of the month in the centre (Tagant), south (Assaba) and southeast (the two Hodhs) while locally heavier showers (40 mm) were reported near Tentemlel in Tagant. Ecological conditions remained favourable for limited survival of locust populations in parts of northwest Mauritania. In the summer breeding areas of the northern Sahel, dry and unfavourable conditions prevailed except in parts of northern Mali (Adrar des Iforas) and Niger (Air Mountains) where very small and insignificant areas of green vegetation were likely to be present. In Northwest Africa, light rain fell at mid-month in southern Algeria but vegetation remained dry except in parts of the northwest (Bechar), centre (Adrar) and southeast (Illizi). In Morocco, vegetation was green south of the Atlas Mountains and near the Algerian border in the Draa and Ziz-Ghris valleys but was starting to dry out in some places. In Western Sahara, vegetation remained dry. Good rains fell in southwest Libya near Ghat at mid-month.

In the **Central Region**, good rains fell in the spring breeding areas of the interior of Saudi Arabia during April. Most of the rain was concentrated in central areas between the northwestern edge of the Empty Quarter and Hail. Some showers also fell in the summer breeding areas in the interior of Yemen between Al Hazm and Hadhramaut. On the Red Sea coast, light rains fell along parts of the Eritrean plains from Assab in the south to Karora in the north. Light showers may have also fallen in adjacent coastal areas of Aiterba in Sudan as well as further north on the coast along the Egyptian-Sudanese border. A few showers fell on the Red Sea coast of Yemen south of Hodeidah. In eastern Ethiopia, light rains fell from Dire Dawa to the Somali border, extending into the Ogaden in Ethiopia and the Somali plateau in northwestern Somalia. Consequently, ecological conditions could

improve sufficiently in some of these areas to allow limited breeding during May. Dry conditions prevailed elsewhere in the Region.

In the **Eastern Region**, dry conditions prevailed throughout April in all areas. Consequently, ecological conditions were less favourable than usual in the spring breeding areas of western Pakistan and southeastern Iran. Nevertheless, vegetation was green in a few places along the coast in both countries but soil moisture remained dry.



Area Treated

Saudi Arabia 673 ha (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

Isolated solitary adults may be present in a few places in Inchiri, southwest Adrar and southern Tiris-Zemmour. By the end of the forecast period, locusts will decline in these areas as low numbers of solitary adults could start to appear in the summer breeding areas in the south. No significant developments are likely.

Mali

• SITUATION

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

• FORECAST

Isolated adults may be present and will persist in parts of the Adrar des Iforas.

Niger

• SITUATION

During April, an isolated solitary adult was seen in the southern Air Mountains west of Agadez at Inbakaten (1659N/0754E).

• Forecast

Isolated adults may be present in the southeast of the Air Mountains.

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, no locusts were seen during surveys carried out in the west near Tindouf (2741N/0811W), southwest of Beni Abbes (3011N/0214W) and near Bechar (3135N/0217W), in the central Sahara near Adrar (2753N/0017W), in the south near Tamanrasset (2250N/0528E), and in the east between Djanet (2434N/0930E) and Illizi (2630N/0825E).

• FORECAST

Low numbers of locusts may be present and could breed on a small scale between Beni Abbes and the Moroccan border, and perhaps near Adrar and between Djanet and Illizi.

Morocco

• SITUATION

During April, isolated immature and mature solitary adults were dispersed at an increasing number of places south of the Atlas Mountains along the Algerian border between Fom El Hassan (2901N/0853W) and Bouarfa (3232N/0159W), including the Draa and Ziz-Ghris valleys. Some adults were copulating south of Erfoud (3128N/0410W).

• FORECAST

Limited hatching will occur in May in parts of the Draa Valley and along the Algerian border, causing locust numbers to increase slightly but remain below threatening levels.

Libyan Arab Jamahiriya

• SITUATION

During April, small-scale breeding occurred in the southwest near Ghat (2459N/1011E) where scattered third instar solitary hoppers were seen in one place.

• FORECAST

Low numbers of adults are likely to persist in parts of the southwest near Ghat and Ghadames.

Tunisia

• SITUATION

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

• FORECAST

No significant developments are likely.

CENTRAL REGION

Sudan

• SITUATION

No reports were received during April.

• FORECAST

No significant developments are likely.

Eritrea

• SITUATION

No reports were received during April.

• FORECAST

By the end of the forecast period, low numbers of solitary adults may start to appear in the summer breeding areas in the interior.

Ethiopia

• SITUATION

No locusts were seen during surveys carried out in April between Dire Dawa (0935N/4150E) and the Somali border.

• FORECAST

No significant developments are likely.

Djibouti

• SITUATION

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

• FORECAST

No significant developments are likely.

Somalia

• SITUATION

No reports were received during April.

• FORECAST

No significant developments are likely.



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Egypt

• SITUATION

No locusts were seen during surveys carried out in the first decade of April on the Red Sea coast between Abu Ramad (2224N/3624E) and the Sudanese border, and on the western side of Lake Nasser near Tushka (2247N/3126E).

• FORECAST

No significant developments are likely.

Saudi Arabia

• SITUATION

During April, ground control teams treated 673 ha of numerous but small late instar hopper groups and bands and immature adults from local breeding that occurred on the Red Sea coast near Rabigh (2247N/3901E). Some adults were seen copulating. No locusts were seen elsewhere during surveys.

• FORECAST

Locust numbers will decline on the Red Sea coastal plains and groups of adults are expected to move into areas of recent rainfall in the interior between Hail and Riyadh, and breed on a small scale.

Yemen

• SITUATION

During the last week of April, isolated solitary mature adults and one solitary hopper were seen at three places on the Gulf of Aden coastal plains northwest of Aden (1250N/4503E). No locusts were seen during surveys on the Red Sea coastal plains.

• FORECAST

Low numbers of solitary adults could appear in areas of recent rainfall in Shabwah and Hadhramaut.

Oman

• SITUATION

No locusts were seen during surveys carried out in April in the northern interior near Buraimi (2415N/5547E) and Adam (2223N/5731E).

• FORECAST

Small-scale breeding could occur in areas of earlier rainfall on the eastern side of the Wahiba Sands in Sharqiyah region.

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

During the first half of April, no locusts were seen during surveys carried out on the southeast coast near Jask (2540N/5746E) and Bander-e Lengheh (2634N/5452E), and at one place in the Jaz Murian Basin near Bampur (2711N/6028E).

• FORECAST

Unless further rains fall, the likelihood of small-scale breeding occurring on the southeast coast will decline during May as conditions continue to dry out. No significant developments are likely.

Pakistan

• SITUATION

No locusts were reported during surveys carried out in the spring breeding areas of Baluchistan during the first half of April.

• Forecast

Unless further rains fall, the likelihood of small-scale breeding occurring in the spring breeding areas of Baluchistan will decline during May as conditions continue to dry out. By the end of the forecast period, low numbers of solitary adults may start to appear in the summer breeding areas in Cholistan and Tharparkar. No significant developments are likely.

India

• SITUATION

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

• FORECAST

By the end of the forecast period, low numbers of solitary adults may start to appear in the summer breeding areas in Rajasthan and Gujarat.

Afghanistan

• SITUATION

No reports received.

• FORECAST

No significant developments are likely.



Announcements

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/ECLLO Desert Locust Information Service (ecllo@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 (ecllo@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:

- **Desert Locust situation updates.** Archives Section – Briefs
- **Desert Locust risk map update.** Archives Section – Risk maps

Locust Watch in Caucasus and Central Asia. The first regional monthly bulletin has been issued and is available on the website (www.fao.org/ag/locusts-CCA/en/index.html). The bilingual bulletin (English/Russian) summarizes the regional locust situation in the previous month and includes a forecast for the coming month for Italian, Moroccan and Migratory locusts. It will be issued by the 15th of each month.

2010 events. The following activities are scheduled or planned:

- **SWAC/CRC Master Trainers.** 2nd Master Trainers training course, Ramsar, Iran (8-13 May)
- **CLCPRO.** 6th session of Executive Committee, Ouagadougou, Burkina Faso (28-30 June)
- **CRC training.** 3rd regional aerial Desert Locust training course, Moshi, Tanzania (2-6 Aug)
- **CRC.** 31st session of Executive Committee and 27th session of Commission, Beirut, Lebanon (20-24 Sep)
- **SWAC.** 27th session, Islamabad, Pakistan (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 km² • band: 1 - 25 m²

SMALL

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



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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

- 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.

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

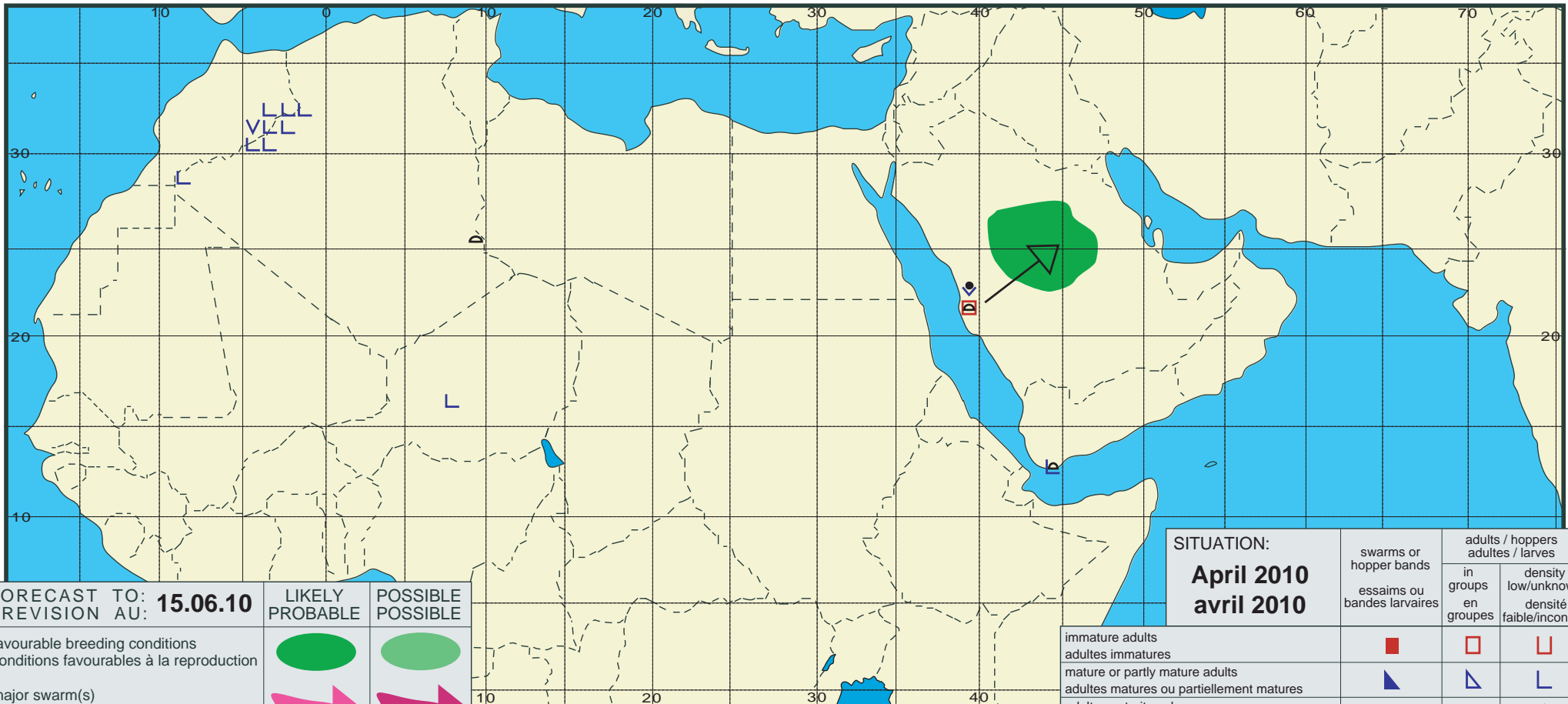
- locust-affected countries in South-West Asia: Afghanistan, India, Iran and Pakistan.



Desert Locust Summary

Criquet pèlerin - Situation résumée

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FORECAST TO: PREVISION AU: 15.06.10	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: April 2010 avril 2010	swarms or hopper bands	adults / hoppers	
	essaims ou bandes larvaires	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)			