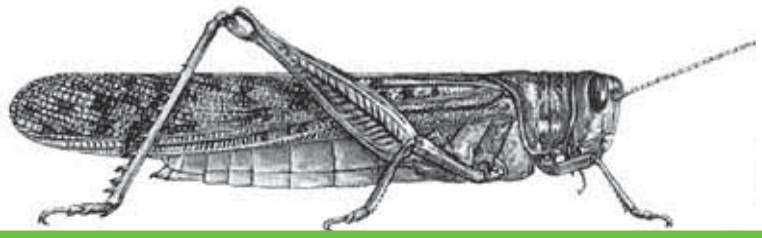

warning level: **CALM**

# DESERT LOCUST BULLETIN

**FAO Emergency Centre for Locust Operations**

**No. 463**

*(3.5.2017)*

## General Situation during April 2017
## Forecast until mid-June 2017

**The Desert Locust situation was calm during April due to poor rainfall and ecological conditions throughout most of the spring breeding areas in northwest Africa and the Arabian Peninsula. Low numbers of solitarious adults were present in Mauritania, Morocco, Algeria, Egypt and Iran. The situation continued to remain unclear in Yemen where surveys could not be conducted. During the forecast period, small-scale breeding could occur in parts of the interior in Saudi Arabia and Yemen, and in a few places in northeast Morocco, central Algeria and southeast Iran. Although this may cause locust numbers to increase slightly, they will remain below threatening levels and no significant developments are likely.**

**Western Region.** The situation remained calm in the region during April. Low numbers of adults were present in parts of northern **Mauritania**, Western Sahara and northeast **Morocco**, and in central **Algeria**. Limited breeding occurred near irrigated farms in the central Sahara of Algeria where small-scale ground control operations were undertaken. A lack of rainfall and poor ecological conditions will severely reduce spring breeding this year. Consequently, no significant developments are likely. In Mauritania, low numbers of adults will gradually move south towards summer breeding areas in the southeast.

**Central Region.** The locust situation remained calm as no locusts were reported in the region during April except for isolated adults in southeast **Egypt**. Nevertheless, ecological conditions were favourable in parts of the interior of **Saudi Arabia** and **Yemen** where small-scale breeding could occur during the forecast period and cause locust numbers to increase slightly. Both countries should stay alert because the situation continues to remain unclear in Yemen as surveys cannot be carried out. Elsewhere, no significant developments are likely.

**Eastern Region.** Scattered adults were present in southeast **Iran** where small-scale breeding is likely to occur during the forecast period. No locusts were present in adjacent areas of southwest **Pakistan** where conditions remained dry and unfavourable for breeding. No significant developments are likely.

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.
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## Weather & Ecological Conditions in April 2017

**Good rains fell in parts of the Central Region during April but ecological conditions were dry in most areas except for parts of the spring breeding areas in northwest Morocco, Saudi Arabia and southeast Iran.**

In the **Western Region**, no significant rain fell in Desert Locust breeding areas during April for the second consecutive month. Consequently, ecological conditions were mainly dry and unfavourable for breeding except for a few limited areas in W. Sakia El Hamra in northern Western Sahara and in northeast Morocco near Bouarfa, in the central Sahara of Algeria between Adrar and In Salah, and in northern Mauritania south of Bir Moghrein and in the northwest near Nouadhibou. During the second decade, light rains may have fallen at times in northern Mali (southwest of Aguelhoc) and Niger (Tamesna and Air), and in southern Algeria (west of Tamanrasset) where ecological conditions may permit the survival of low numbers of adults.

In the **Central Region**, good rains fell at times during the last two decades of April in a few places on the Red Sea coast between Assab, Eritrea and Shalatyn, Egypt as well as near Jeddah and on the Tihama in Yemen. Some showers also fell in the Red Sea Hills of Sudan, in eastern Ethiopia near Dire Dawa and Jijiga, and on the Somali plateau and escarpment east of Hargeisa. Nevertheless, ecological conditions continued to dry out in the winter breeding areas along both sides of the Red Sea but remained green in a few places along the northwest coast in northern Somalia. In spring breeding areas, rains fell at times in northern Saudi Arabia near Al Jawf, in central interior areas near Gassim and in the south near Wadi Dawasir and Najran, causing ecological conditions to be favourable for breeding. Ecological conditions were also likely to be favourable for breeding in the interior of Yemen between Marib and Thamud where good rains fell during March.

In the **Eastern Region**, very little rain fell during April except in the Jaz Murian Basin of southeast Iran. Ecological conditions were favourable for small-scale breeding in southeast Iran along parts of the coast between Chabahar and Jask, and in the Jaz Murian Basin of the interior. On the contrary, breeding conditions were not favourable in adjacent areas of Baluchistan in western Pakistan.

## Area Treated

| | |
|---|---|
| Algeria | 32 ha (April) |

## Desert Locust Situation and Forecast

*( see also the summary on page 1 )*

**WESTERN REGION**

**Mauritania**

• **SITUATION**

During April, low numbers of mature solitarious adults persisted in the north between Zouerate (2244N/1221W) and Bir Moghrein (2510N/1135W). No locusts were seen between Nouakchott (1809N/1558W) and Zouerate and in the northwest near Nouadhibou (2056N/1702W).

• **FORECAST**

*Low numbers of adults present between Zouerate and Bir Moghrein will gradually move south towards the summer breeding areas.*

**Mali**

• **SITUATION**

No locust activity was reported during April.

• **FORECAST**

*Low numbers of adults may be present and will persist in parts of the Adrar des Iforas.*

**Niger**

• **SITUATION**

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

• **FORECAST**

*Low numbers of adults may be present in the Air Mountains and west of Agadez.*

**Chad**

• **SITUATION**

No locust activity was reported during April.

• **FORECAST**

*No significant developments are likely.*

**Senegal**

• **SITUATION**

No reports received.

• **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, small-scale breeding occurred near irrigated farms in the central Sahara south of Adrar (2753N/0017W) and at one place west of In Salah (2712N/0229E) where adults were copulating and laying eggs. Ground teams treated 32 ha of second to fourth instar solitarious hoppers at densities of 10–20 hoppers/$m^2$ and mature adults. No locusts were seen near in the northwest near Bechar (3135N/0217W), in the west near Tindouf (2741N/0811W) and in the south between In Salah and Tamanrasset (2250N/0528E).

• **Forecast**

*Local breeding will cause locust numbers to increase slightly near Adrar irrigated farms where a few very small groups could form.*

**Morocco**

• **Situation**

During April, isolated immature and mature solitarious adults persisted in the northern Western Sahara between Boucraa (2621N/1250W) and Haouza (2707N/1112W), and scattered immature solitarious adults were present in the northeast near Bouarfa (3232N/0159W).

• **Forecast**

*If further rains fall, small-scale breeding may cause locust numbers to increase slightly in the northern Western Sahara; otherwise, locust numbers will decline and no significant developments are expected. In the northeast, limited breeding may occur near Bouarfa as adults become mature.*

**Libya**

• **Situation**

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

• **Forecast**

*Isolated adults may be present in the southwest but breeding is unlikely and no significant developments are expected.*

**Tunisia**

• **Situation**

No locust activity was reported during April.

• **Forecast**

*No significant developments are likely.*

**CENTRAL REGION**

**Sudan**

• **Situation**

No reports received.

• **Forecast**

*Scattered adults may appear in the Nile Valley between Atbara and Dongola where small-scale breeding could occur near cropping areas.*

**Eritrea**

• **Situation**

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

• **Forecast**

*No significant developments are likely.*

**Ethiopia**

• **Situation**

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

• **Forecast**

*Isolated adults may be present in areas of recent rainfall near Dire Dawa and Jijiga where small-scale breeding could occur if more rains fall.*

**Djibouti**

• **Situation**

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

• **Forecast**

*No significant developments are likely.*

**Somalia**

• **Situation**

During April, no locusts were seen during surveys carried out on the coastal plains, escarpment and plateau of the northwest between Hargeisa (0931N/4402E), Boroma (0956N/4313E), Silil (1058N/4326E) and Lughaye (1041N/4356E) on 19–24 April. In the northeast, no locusts were seen between Garowe (0824N/4829E) and Gardo (0930N/4905E) on 18–21 April.

• **Forecast**

*No significant developments are likely.*

**Egypt**

• **Situation**

During April, isolated mature solitarious adults persisted at one location near the southeast coastal

plains of the Red Sea in Wadi Diib to the southwest of Abu Ramad (2224N/3624E). No locusts were seen during surveys elsewhere on the Red Sea coast between the Sudanese border and Shalatyn (2308N/3535E).

• **Forecast**

*No significant developments are likely.*

**Saudi Arabia**

• **Situation**

During April, no locusts were seen during surveys carried out in winter breeding areas along the Red Sea coast near Jizan (1656N/4233E) and between Masturah (2309N/3851E) and Yenbo (2405N/3802E). Similarly, no locusts were in the spring breeding areas of the interior south of Medinah (2430N/3935E), near Wadi Dawasir (2028N/4747E), Najran (1729N/4408E), Tabuk (2823N/3635E), southwest of Gassim (2621N/4358E) and Riyadh (2439N/4642E), and in the east near Al Hofuf (2519N/4937E).

• **Forecast**

*Low numbers of adults may be present near Gassim, Wadi Dawasir and Najran where small-scale breeding could occur.*

**Yemen**

• **Situation**

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

• **Forecast**

*Low numbers of adults are likely to be present along parts of the Red Sea and Gulf of Aden coastal plains. Small-scale breeding may cause locust numbers to increase slightly in the interior between Marib, Ataq, Al Abr, Sayun and the plateau south of Hazar where good rains fell in March.*

**Oman**

• **Situation**

During April, no locusts were seen during surveys carried out on the Musandam Peninsula and in the northern interior near Buraimi (2415N/5547E).

• **Forecast**

*Low numbers of adults may be present in a few places on the northern Batinah coast and in the interior regions of Buraimi, Dhahera and Sharqiya. Breeding is unlikely to occur unless further rains fall.*

**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 on the southeast coastal plains between Chabahar (2517N/6036E) and Jask (2540N/5746E) and in the Jaz Murian Basin between Ghale Ganj (2731N/5752E) and Bampur (2711N/6028E).

• **Forecast**

*Small-scale breeding is likely to occur on the southeast coast between Minab and Chabahar, and in the Jaz Murian Basin, causing locust numbers to increase slightly.*

**Pakistan**

• **Situation**

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

• **Forecast**

*No significant developments are likely.*

**India**

• **Situation**

No locusts were seen during April in Rajasthan and Gujarat.

• **Forecast**

*No significant developments are likely.*

**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/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.

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

- **WMO/FAO Weather and Desert Locusts booklet.** Publications – Documents
- **CLCPRO Regional workshop on Desert Locust information management in the Western Region.** Publications – Reports 2017

**2017 events.** The following activities are scheduled or planned:

- **CRC/SWAC.** Desert Locust Information Officer workshop, Egypt (7–11 May)

## 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 $km^2$ • band: 1 - 25 $m^2$

SMALL

- swarm: 1 - 10 $km^2$ • band: 25 - 2,500 $m^2$

MEDIUM

- swarm: 10 - 100 $km^2$ • band: 2,500 $m^2$ - 10 ha

LARGE

- swarm: 100 - 500 $km^2$ • band: 10 - 50 ha

VERY LARGE

- swarm: 500+ $km^2$ • 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 AREAS

- July - September/October
  (Sahel of West Africa, Sudan, western Eritrea; Indo-Pakistan border)

WINTER RAINS AND BREEDING AREAS

- October - January/February
  (Red Sea and Gulf of Aden coasts; northwest Mauritania, Western Sahara)

SPRING RAINS AND BREEDING AREAS

- February - June/July
  (Northwest Africa, Arabian Peninsula interior, Somali plateau, Iran/Pakistan border)

RECESSION

- period without widespread and heavy infestations by swarms.

REMISSION

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

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.

**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.

## 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**

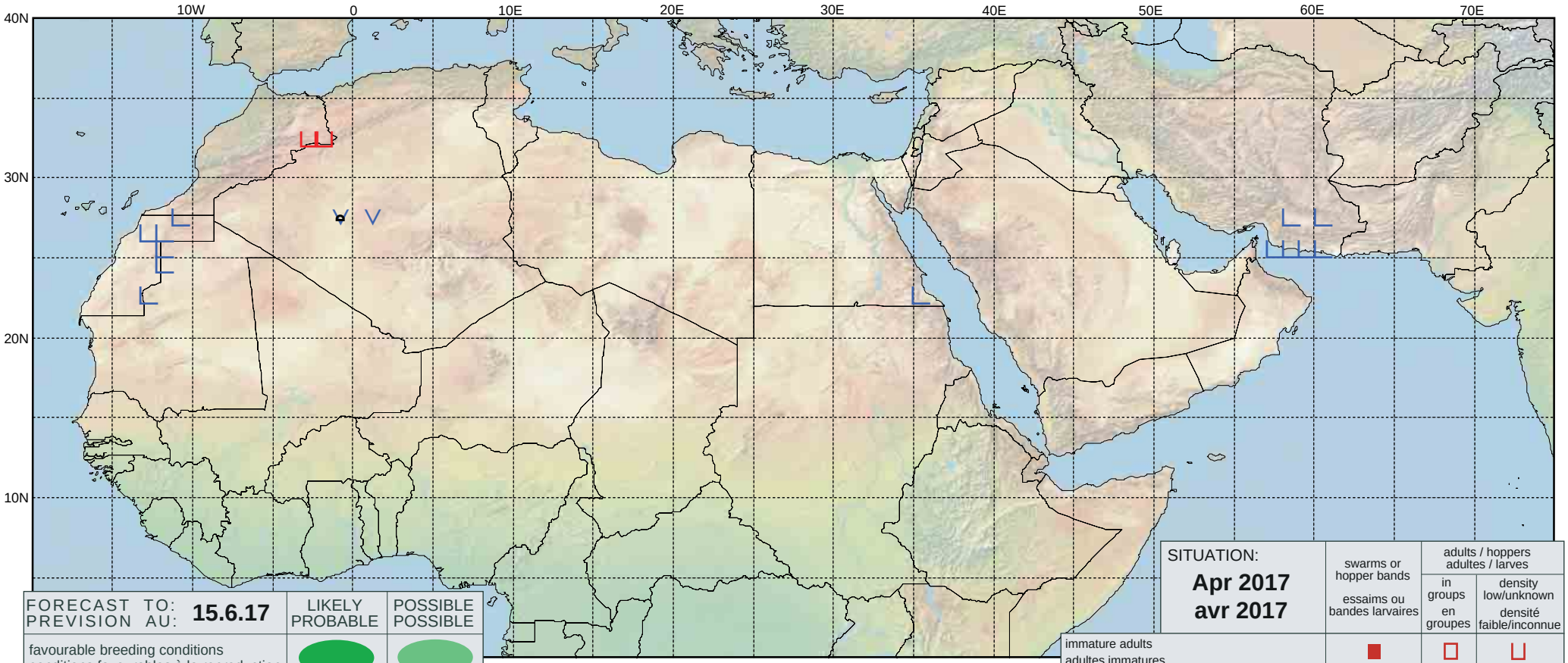
- locust-affected countries in South-West Asia: Afghanistan, India, Iran and Pakistan.

## Useful tools and resources

- **FAO Locust Watch.** Information, maps, activities, publications, archives, FAQs, links
  http://www.fao.org/ag/locusts
- **IRI RFE.** Rainfall estimates every day, decade and month
  http://iridl.ldeo.columbia.edu/maproom/.Food_Security/.Locusts/index.html
- **IRI Greenness maps.** Dynamic maps of green vegetation evolution every decade
  http://iridl.ldeo.columbia.edu/maproom/Food_Security/Locusts/Regional/greenness.html
- **IRI MODIS.** Vegetation imagery every 16 days
  http://iridl.ldeo.columbia.edu/maproom/Food_Security/Locusts/Regional/MODIS/index.html
- **Windytv.** Real time rainfall, winds and temperatures for locust migration
  http://windytv.com
- **eLocust3 training videos.** A set of 15 introductory training videos are available on YouTube
  https://www.youtube.com/playlist?list=PLf7Fc-oGpFHEdv1jAPaF02TCfpcnYoFQT
- **RAMSESv4 training videos.** A set of basic training videos are available on YouTube
  https://www.youtube.com/playlist?list=PLf7Fc-oGpFHGyzXqE22j8-mPDhhGNq5So
- **RAMSESv4 and eLocust3.** Installer, updates, videos, inventory and support
  https://sites.google.com/site/rv4elocust3updates/home
- **FAOLocust Twitter.** The very latest updates posted as tweets
  http://www.twitter.com/faolocust
- **FAOLocust Facebook.** Information exchange using social media
  http://www.facebook.com/faolocust
- **FAOLocust Slideshare.** Locust presentations and photos
  http://www.slideshare.net/faolocust
- **eLERT.** Online database of resources and technical specifications for locust emergencies
  http://sites.google.com/site/elertsite

# Desert Locust Summary
# Criquet pèlerin - Situation résumée

**463**




| FORECAST TO: / PREVISION AU: **15.6.17** | LIKELY / PROBABLE | POSSIBLE / POSSIBLE |
|---|---|---|
| favourable breeding conditions<br>conditions favourables à la reproduction | | |
| major swarm(s)<br>essaim(s) important(s) | | |
| minor swarm(s)<br>essaim(s) limité(s) | | |
| non swarming adults<br>adultes non essaimant | | |

| SITUATION: **Apr 2017 / avr 2017** | swarms or hopper bands<br>essaims ou bandes larvaires | adults / hoppers adultes / larves | |
|---|---|---|---|
| | | in groups<br>en groupes | density low/unknown<br>densité faible/inconnue |
| immature adults<br>adultes immatures | | | |
| mature or partly mature adults<br>adultes matures ou partiellement matures | | | |
| adults, maturity unknown<br>adultes, maturité inconnue | | | |
| egg laying or eggs<br>pontes ou œufs | | | |
| hoppers<br>larves | | | |
| hoppers & adults (combined symbol example)<br>larves et adultes (exemple symboles combinés) | | | |