

warning level: **CALM**

# DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 471



General Situation during December 2017  
Forecast until mid-February 2018

(3.1.2018)

The Desert Locust situation continued to remain calm during December. No significant rain fell and ecological conditions were dry in most areas except in parts of the winter breeding areas along both sides of the Red Sea and in few places of northwest and northern Mauritania. So far, localized breeding has only been detected in one place on the Sudanese coast and in northwest Mauritania where low numbers of solitarious adults were present. Elsewhere, isolated solitarious adults were present in Chad but numbers declined throughout the month. During the forecast period, small-scale breeding is expected to occur primarily on the Red Sea coast in Sudan as well as in areas that receive rainfall along both sides of the Red Sea and Gulf of Aden. However, locust numbers will remain low and no significant development are likely.

**Western Region.** The situation continued to remain calm during December. No significant rain fell and ecological conditions were mainly dry. Isolated solitarious adults were present in a few places northwest and northern Mauritania, in the central and southern Sahara of Algeria and in the northern Sahel in Chad. Small-scale breeding occurred in northwest Mauritania but locust numbers remained low. During the forecast period, the situation is expected to remain calm. Isolated adults are likely to persist in current areas and may also be present in a few places of the Western Sahara in Morocco, and in northern Mali and Niger.

**Central Region.** The situation continued to remain calm during December. Although no significant rainfall occurred, ecological conditions were favourable in a few places along both sides of the Red Sea to allow small-scale breeding. No locusts were present in the region except for isolated solitarious adults in a few places on the central and southern coast of the Red Sea in Sudan. Limited breeding was detected in one area. During the forecast period, the situation is likely to remain calm. Low numbers of adults are expected to be present in winter breeding areas along both sides of the Red Sea and Gulf of Aden in Sudan, Eritrea, Saudi Arabia, Yemen and perhaps southeast Egypt and northern Somalia. Based on seasonal precipitation forecasts, small-scale breeding is likely to occur on the Red Sea coast in Sudan and, to a lesser extent, in other places that receive rainfall along both sides of the Red Sea and Gulf of Aden. However, locust numbers will remain low.

**Eastern Region.** The locust situation continued to remain calm in the region during December. No locusts were reported and no significant developments are likely 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 are available on the Internet.

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### Area Treated

No control operations were reported during December.



### Weather & Ecological Conditions in December 2017

**No significant rain fell during December. Ecological conditions were primarily dry and unfavourable for breeding except for some coastal areas on both sides of the Red Sea.**

In the **Western Region**, no significant rain fell during December. Light rain may have fallen at mid-month in parts of the central Sahara and Hoggar Mountains in Algeria. Ecological conditions remained generally unfavourable for locust breeding but may be sufficient in some areas for limited survival of low numbers. In West Africa, annual vegetation continued to dry out in western Mauritania, northern Mali, Tamesna and the Air Mountains in northern Niger, and in the northern Sahel of Chad. In Northwest Africa, mainly dry vegetation was present in central and southern Western Sahara of Morocco except for small spots of green vegetation in a few places. In Algeria, vegetation was green in the central Sahara near irrigated farms in the Adrar Valley, and in wadis draining the Hoggar Mountains in the southern Sahara southwest of Tamanrasset and in the east near Illizi.

In the **Central Region**, no significant rain fell during December in winter breeding areas along the Red Sea and Gulf of Aden coasts. Nevertheless, vegetation was green or becoming green in a few places along the central and southern coast of Sudan, on the coast in southeast Egypt and on the northern coast of Saudi Arabia between Thuwal and Al Wajh. Smaller areas of green vegetation were present in subcoastal areas of northeast Sudan, and on the coast in Eritrea near the Sudanese border and on the southern parts of the Akbanazouf Plain. In Oman, good rains fell during the second decade of the month in parts of the northern coast and interior.

In the **Eastern Region**, no significant rain fell in the region during December. Ecological conditions remained unfavourable for breeding in all areas.



### Desert Locust Situation and Forecast

( see also the summary on page 1 )

#### WESTERN REGION

##### **Mauritania**

###### • SITUATION

During the first week of December, isolated immature and mature solitarious adults persisted in a few places of Tiris-Zemmour near Bir Moghreïn (2510N/1135W) and in southwest Adrar near Choum (2118N/1304W). Small-scale breeding occurred between Oujett (2003N/1301W) and Akjoujt (1945N/1421W) where a few second to fifth instar hoppers were present mixed with isolated immature and mature solitarious adults.

###### • FORECAST

*Low numbers of adults will persist in parts of southwest Adrar and Tiris-Zemmour, and could be present in parts of Inchiri. There is a possibility for small-scale breeding if additional rainfall occurs.*

##### **Mali**

###### • SITUATION

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

###### • FORECAST

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

##### **Niger**

###### • SITUATION

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

###### • FORECAST

*Low numbers of adults are likely to present and will persist in a few places in the Air Mountains and perhaps to a lesser extent in parts of Tamesna.*

##### **Chad**

###### • SITUATION

During December, locust numbers declined and only isolated mature solitarious adults, at densities of 100–600 adults/ha, were scattered in Kanem and Batha near Salal (1448N/1712E) and southeast of Beurkia (1523N/1800E), and in the northeast between Arada (1501N/2040E) and Fada (1714N/2132E).

- **FORECAST**

*No significant developments are likely.*

### **Senegal**

- **SITUATION**

No locust activity was reported during December.

- **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 December, isolated mature solitary adults persisted in a few places of the Adrar Valley (2753N/0017W) of the central Sahara and were present in the south between Tamanrasset (2250N/0528E) and the Malian border. No locusts were seen in the east near Illizi (2630N/0825E).

- **FORECAST**

*Scattered adults may persist in the extreme south near the Mali and Niger borders while others could remain near irrigated cropping areas in the Adrar Valley.*

### **Morocco**

- **SITUATION**

No locusts were seen during surveys carried out in southern and central areas of Western Sahara from south of Bir Anzarane (2353N/1431W) to the Mauritanian border from 27 November to 11 December.

- **FORECAST**

*Isolated adults may be present in parts of the Western Sahara where small-scale breeding could take place if rainfall occurs.*

### **Libya**

- **SITUATION**

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

- **FORECAST**

*No significant developments are likely.*

### **Tunisia**

- **SITUATION**

No locust activity was reported during December.

- **FORECAST**

*No significant developments are likely.*

## **CENTRAL REGION**

### **Sudan**

- **SITUATION**

During the first half of December, isolated immature and mature solitary adults were present on the Red Sea coast in the Tokar Delta (1827N/3741E) while isolated mature adults were seen on the coast near Suakin (1906N/3719E) and Aiterba (1753N/3819E). Small-scale breeding was detected during the second half of the month at one place near Suakin.

- **FORECAST**

*Small-scale breeding will occur in areas of recent rainfall along the Red Sea coast and in subcoastal areas of the northeast, causing locust numbers to increase slightly. Limited hatching will commence in early January and hoppers will fledge by mid-February.*

### **Eritrea**

- **SITUATION**

No locusts were seen during surveys carried out on the central Red Sea coastal plains from Wekiro (1548N/3918E) to the Sudanese border on 16–20 December.

- **FORECAST**

*Small-scale breeding is likely to occur in areas of recent rainfall on the central and northern Red Sea coastal plains.*

### **Ethiopia**

- **SITUATION**

During December, isolated solitary adults were present at one place in the railway area between Dire Dawa (0935N/4150E) and Ayasha (1045N/4234E). No locusts were seen elsewhere during surveys.

- **FORECAST**

*No significant developments are likely.*

### **Djibouti**

- **SITUATION**

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

- **FORECAST**

*No significant developments are likely.*

### **Somalia**

- **SITUATION**

No reports were received in December.



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- **FORECAST**

*Low numbers of adults may appear and breed on a small scale on the northwest coast in any areas that receive rainfall. No significant developments are likely.*

### **Egypt**

- **SITUATION**

During December, no locusts were seen on the Red Sea coast from south of Marsa Alam (2504N/3454E) to the Sudanese border, and in the Lake Nasser area near Tushka (2247N/3126E) and Abu Simbel (2219N/3138E).

- **FORECAST**

*Low numbers of adults may appear and breed on the southeastern coastal plains of the Red Sea in any areas that receive rainfall. No significant developments are likely.*

### **Saudi Arabia**

- **SITUATION**

No locusts were seen during surveys carried out along the Red Sea coastal plains between Al Wajh (2615N/3627E) and the Yemeni border during the first week of December.

- **FORECAST**

*Low numbers of adults are likely to be present in winter breeding areas on the Red Sea coast and breed on a small scale in any areas that receive rainfall.*

### **Yemen**

- **SITUATION**

No surveys were carried out and no locusts were reported in December due to prevailing insecurity.

- **FORECAST**

*Small-scale breeding may take place on a limited basis in parts of the Red Sea and Gulf of Aden coastal plains where rainfall occurs.*

### **Oman**

- **SITUATION**

No locusts were seen during surveys carried out in a few places of the Musandam Peninsula, the Batinah coast, and the northern interior south of Adam (2223N/5731E) in December.

- **FORECAST**

*No significant developments are likely.*

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

- **FORECAST**

*No significant developments are likely.*

### **EASTERN REGION**

#### **Iran**

- **SITUATION**

During December, no locusts were seen during surveys carried out on the southeast coast near Jask (2540N/5746E) and in the interior of the Jaz Murian Basin near Ghale Ganj (2731N/5752E).

- **FORECAST**

*No significant developments are likely.*

#### **Pakistan**

- **SITUATION**

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

- **FORECAST**

*No significant developments are likely.*

#### **India**

- **SITUATION**

No locusts were seen during survey carried out in Rajasthan and Gujarat in December.

- **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). Reports received by the first two days of the new month will be included in the FAO Desert Locust Bulletin for the current month; otherwise, they 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

**RAMSES training videos.** New training videos are available on YouTube for Rv4.1 users – see Useful tools and resources section of this bulletin.

**2018 events.** The following activities are scheduled or planned:

- **SWAC.** Desert Locust Information Officer workshop, Tehran (15–17 January)
- **CLCPRO.** Regional Desert Locust Information Officer workshop, Algiers (9–12 April)
- **CRC/SWAC.** Interregional Desert Locust Information Officer workshop, Cairo (5–8 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<sup>2</sup>      • band: 1–25 m<sup>2</sup>

#### **SMALL**

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

#### **MEDIUM**

- swarm: 10–100 km<sup>2</sup>            • band: 2,500 m<sup>2</sup> – 10 ha

#### **LARGE**

- 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

#### **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.



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### 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: Benin, Burkino Faso, Cameroon, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Nigeria, Sierre Leone and Togo.

#### 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, Lebanon, Palestine, Qatar, South Sudan, 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](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](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](http://iridl.ldeo.columbia.edu/maproom/Food_Security/Locusts/Regional/MODIS/index.html)

**Windy.** Real time rainfall, winds and temperatures for locust migration

<http://www.windy.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

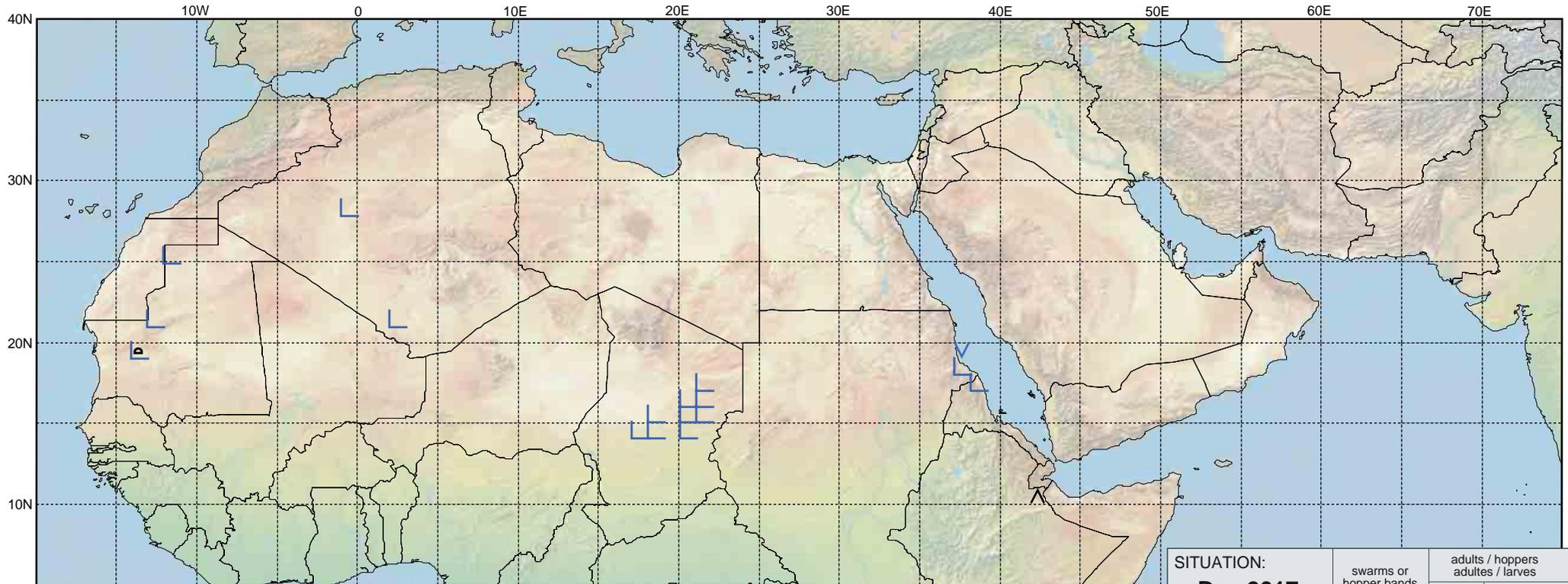
<http://sites.google.com/site/elertsite>



# Desert Locust Summary

## Criquet pèlerin - Situation résumée

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FORECAST TO: PREVISION AU:	<b>15.02.18</b>	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: <b>Dec 2017</b> <b>déc 2017</b>	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)			