



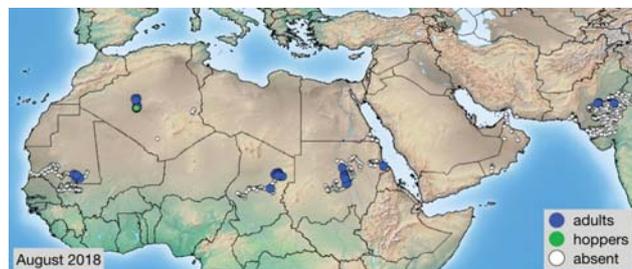
Desert Locust Bulletin

General situation during August 2018
Forecast until mid-October 2018

WESTERN REGION: CALM

SITUATION. Small-scale breeding occurred in central **Algeria** while scattered adults were present in southeast **Mauritania** and eastern **Chad**.

FORECAST. Small-scale breeding will cause locust numbers to increase slightly in the northern Sahel of **Mauritania, Mali, Niger, Chad** and southern **Algeria**. No significant developments are likely.



The Desert Locust situation continued to remain calm during August

Only low numbers of solitary adults were present in central Algeria, southeast Mauritania, northeast Chad, Sudan and along both sides of the Indo-Pakistan border during August. Despite good rains that fell unusually far north in the northern Sahel of West Africa and Sudan, very little breeding has been detected so far with the exception of isolated solitary hoppers in the Adrar Valley of central Algeria where limited ground control operations were carried out. During the forecast period, small-scale breeding will cause locust numbers to increase slightly in the summer breeding areas from Mauritania to western Eritrea. Limited breeding will continue along both sides of the Indo-Pakistan border, but this should conclude by the end of the forecast period. Scattered adults may appear on the Red Sea coast of Sudan, Eritrea, Yemen and southwest Saudi Arabia where early breeding could occur in those areas that received good rains in August.

CENTRAL REGION: CALM

SITUATION. Scattered adults were present in **Sudan**.

FORECAST. Small-scale breeding will cause locust numbers to increase slightly in the interior of **Sudan** and in western **Eritrea**. Breeding may occur on the Red Sea coast in **Eritrea, Sudan, Yemen** and **Saudi Arabia**. No significant developments are likely.

EASTERN REGION: CALM

SITUATION. Isolated adults were present at a few places on both sides of the **Indo-Pakistan border**.

FORECAST. Small-scale breeding will continue until the end of the forecast period along both sides of the **Indo-Pakistan border**. No significant developments are likely.

The FAO Desert Locust Bulletin is issued every month by the Desert Locust Information Service (DLIS) at FAO HQ in Rome, Italy. DLIS continuously monitors the global Desert Locust situation, weather and ecology to provide early warning based on survey and control results from affected countries, combined with remote sensing, historical data and models. The bulletin is supplemented by Alerts and Updates during periods of increased Desert Locust activity. Products are distributed by e-mail and Internet.

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Weather & Ecological Conditions in August 2018

Unusually good rains fell in the summer breeding areas of the northern Sahel between Mauritania and western Eritrea. Good rains also fell along both sides of the Indo-Pakistan border.

WESTERN REGION

The Inter-Tropical Convergence Zone (ITCZ) remained unusually far north over West Africa during August, reaching a peak during the first decade and then retreating southwards during the last two decades. Nevertheless, its position was some 200 km to 400 km further north than usual over Mali and Chad, respectively, but remained south of its normal position over southwest Mauritania. As a result, extremely good rains fell in the northern Sahel from northern Mali to northeast Chad, and ecological conditions were favourable for breeding. Rainfall extended as far north as Western Sahara, southwest (Chenachane) and central Algeria, and the Chad/Libya border. Less rain fell in Mauritania where it was mainly confined to the southeast during the first decade but thereafter it extended to most southern and central areas, including parts of the northwest.

CENTRAL REGION

The Inter-Tropical Convergence Zone (ITCZ) continued its seasonal movement northward over the interior of Sudan during August, reaching its peak during the first decade at Dongola. Thereafter, it retreated slightly southwards. Nevertheless, its position was 100–250 km further north than usual. This caused widespread good rains to fall from Darfur to the Red Sea Hills with particularly heavy rainfall in the western lowlands of Eritrea. Consequently, ecological conditions were favourable for breeding in most of these areas. Good rains also fell in the highlands of Eritrea and Yemen and in southwest Saudi Arabia that extended onto the Red Sea coastal plains in these areas. Showers also fell in eastern Ethiopia along the railway and in adjacent plateau areas of northwest Somalia. Light rains fell in the interior of Yemen between Marib and Hadhramaut. It is likely that breeding conditions will improve in some of these areas, especially if further rains fall.

EASTERN REGION

Widespread, good rains associated with the southwest monsoon fell along both sides of the Indo-Pakistan border from Tharparkar to Cholistan in Pakistan and from Bhuj to Rajasthan in India. Ecological conditions were favourable for breeding even though cumulative rainfall for the current season remained below normal in nearly all areas except for Bikaner district in India. Dry conditions prevailed elsewhere in the region.



Area Treated

Algeria 106 ha (August)



Desert Locust Situation and Forecast

WESTERN REGION

MAURITANIA

• SITUATION

During the first week of August, isolated immature and mature solitarious adults were seen at a few places in the southeast between Aioun El Atrous (1639N/0936W) and Timbedra (1614N/0809W). No locusts were seen elsewhere in the southern regions of Trarza, Brakna, Tagant, Assaba and the two Hodhs.

• FORECAST

Small-scale breeding is likely to occur in areas of recent rainfall in the centre and south, causing locust numbers to increase slightly. Adults may also appear and breed on a small scale in the Aguilal Faye and Zouerate areas.

MALI

• SITUATION

No locusts were seen during surveys carried out in the west near Kayes (1426N/1128W) and Nioro (1512N/0935W) during August.

• FORECAST

Small-scale breeding is likely to occur in areas of recent rainfall in the Adrar des Iforas and Tamesna, causing locust numbers to increase slightly.

NIGER

• SITUATION

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

• FORECAST

Small-scale breeding is likely to be in progress and will continue in areas of recent rainfall in the Tahoua area and on the Tamesna Plains and central pasture areas, causing locust numbers to increase slightly.

CHAD

• SITUATION

During the second half of August, isolated immature solitarious adults were present in the northeast near Fada (1714N/2132E) while isolated mature solitarious adults were present further south near Abeche (1349N/2049E) and Arada (1501N/2040E).

• FORECAST

Small-scale breeding will cause locust numbers to increase slightly in central and northeastern areas. Scattered adults may also be present and breed further north in the Mourdi Depression and Tibesti.

SENEGAL

• SITUATION

No locust activity was reported during August.

• 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 August, small-scale breeding was in progress in the central Sahara between Reggane (2643N/0010E) and Timimoun (2916N/0014E) where scattered mature solitary adults were copulating and laying eggs near irrigated agriculture perimeters and scattered second to fourth instar hoppers were present at one location. Ground teams treated 106 ha. No locusts were seen in the east near Illizi (2630N/0825E).

• FORECAST

Hatching will continue near irrigated perimeters in the central Sahara with fledging throughout the forecast period. Another generation of breeding could commence by October. Low numbers of adults are likely to be present and breeding on a small scale in areas of recent rainfall of the southern Sahara near the borders of Mali and Niger. This will continue during the forecast period, causing locust numbers to increase slightly.

MOROCCO

• SITUATION

No locust activity was reported during August.

• FORECAST

No significant developments are likely.

LIBYA

• SITUATION

No reports were received in August.

• FORECAST

No significant developments are likely.

TUNISIA

• SITUATION

No locust activity was reported during August.

• FORECAST

No significant developments are likely.

CENTRAL REGION

SUDAN

• SITUATION

During August, scattered mature solitary adults persisted along Wadi Muqaddam northwest of Khartoum (1533N/3235E) as well as in the Nile Valley from Ed Debba (1803N/3057E) to north of Dongola (1910N/3027E). No locusts were seen elsewhere in the Nile Valley, the Baiyuda Desert, North Kordofan and to the west of the Red Sea Hills. However, scattered mature adults were present on 6 August in one field on the edge of Tokar Delta on the Red Sea coast where good rains fell in late May.

• FORECAST

Small-scale breeding is likely to be in progress and will continue in areas of recent rainfall, causing locust numbers to increase slightly in North Darfur, North Kordofan, White Nile, Khartoum, River Nile, Northern and Kassala states. Adults may appear in areas of recent rainfall and runoff on the Red Sea coastal plains where early breeding may occur on a small scale.

ERITREA

• SITUATION

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

• FORECAST

Small-scale breeding is likely to be in progress and will continue in areas of recent rainfall in the western lowlands, causing locust numbers to increase slightly. Adults may appear in areas of recent rainfall and runoff on the Red Sea coastal plains where early breeding may occur on a small scale.

ETHIOPIA

• SITUATION

No reports were received in August.

• FORECAST

Small-scale breeding could occur in areas that received rains from Cyclone Sagar in the railway area of Dire Dawa and perhaps on the plateau near Jijiga.

DJIBOUTI

• SITUATION

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

• FORECAST

No significant developments are likely.

SOMALIA

• SITUATION

No reports were received in August.

• FORECAST

No significant developments are likely.

EGYPT

• SITUATION

No locusts were seen during surveys carried out on the Red Sea coastal plains in the southeast between Shalaty (2308N/3535E) and the Sudanese border in August.

• FORECAST

No significant developments are likely.

SAUDI ARABIA

• SITUATION

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

• FORECAST

Adults may appear in areas of recent rainfall and runoff on the southern Red Sea coastal plains where early breeding may occur on a small scale.

YEMEN

• SITUATION

The situation remained unclear as it was not possible to undertake surveys during August because of continued insecurity.

• FORECAST

Small-scale breeding is likely in recent areas of rainfall along the Red Sea coastal plains.

OMAN

• SITUATION

During August, no locusts were seen during surveys carried out on the Musandam Peninsula, along the Batinah coast near Sohar (2421N/5644E) and Jamma (2333N/5733E), in the northern interior near Buraimi (2415N/5547E) and Sinaw (2230N/5802E), and in the southern province of Dhofar north of Thumrait (1736N/5401E).

• FORECAST

Low numbers of adults may be present in a few interior areas of Dhofar near Thumrait and the Empty Quarter where heavy rains fell from Cyclone Mekunu.

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 August, no locusts were seen on the southeast coast near Jask (2540N/5746E).

• FORECAST

No significant developments are likely.

PAKISTAN

• SITUATION

During August, isolated mature solitary adults were seen at three places along the Indian border east of Rahimyar Khan (2822N/7020E) in Cholistan.

• FORECAST

Small-scale breeding is likely to occur in areas of recent rainfall in Cholistan, Nara and Tharparkar deserts, causing locust numbers to increase slightly.

INDIA

• SITUATION

No locusts were seen during surveys carried out in Rajasthan and Gujarat in August except for isolated mature solitary adults at one place west of Bikaner (2801N/7322E).

• FORECAST

Small-scale breeding is likely to occur in areas of recent rainfall in Rajasthan and Gujarat, causing locust numbers to increase slightly.

AFGHANISTAN

• SITUATION

No reports received.

• FORECAST

No significant developments are likely.



Announcements

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 bulletins. 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

Calm (green). Countries should report at least once/month and send RAMSES data with a brief interpretation.

Caution (yellow), threat (orange) and danger (red).

During 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.

Bulletins. Affected countries are encouraged to prepare decadal and monthly bulletins summarizing the situation.

Reporting. All information should be sent by e-mail to the FAO/ECLD Desert Locust Information Service (eclod@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.

Peter Gruys (1936–2018)

It is with deep regret that we announce the death of Peter Gruys on 19 June. Mr. Gruys worked for many years supporting FAO and affected countries in strengthening Desert Locust preventive control. We would like to express our sincere condolences to his family and his government.

Calendar

The following activities are scheduled or planned:

- **CLCPRO.** Workshop on the use of score cards to standardize the implementation of the list of environmental requirements, Dakar, Senegal (17–19 September)
- **CRC.** Simulation of Desert Locust contingency planning, Hurgada, Egypt (30 September – 4 October)
- **CLCPRO.** Training of trainers on survey techniques, Aioun El Atrous, Mauritania (15–22 October)
- **CRC.** Regional workshop on use of *Metarhizium acridum* in Desert Locust control, Hurgada, Egypt (7–9 October)
- **DLCC.** 41st session (postponed to 2019)



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

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

Moderate

- 21–50 mm

Heavy

- more than 50 mm

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

Other reporting terms

Breeding

- The process of reproduction from copulation to fledging

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



Useful tools and resources

FAO Locust Watch. Information, maps, activities, publications, archives, FAQs, links
<http://www.fao.org/ag/locusts>

FAO Desert Locust regional commissions. Western Region (CLCPRO), Central Region (CRC), South-West Asia (SWAC)
<http://www.fao.org/ag/locusts>

IRI RFE. Rainfall estimates every day, decade and month
http://iridl.ideo.columbia.edu/maproom/.Food_Security/.Locusts/index.html

IRI Greenness maps. Dynamic maps of green vegetation evolution every decade
http://iridl.ideo.columbia.edu/maproom/Food_Security/Locusts/Regional/greenness.html

NASA WORLDVIEW. Satellite imagery in real time
<https://worldview.earthdata.nasa.gov>

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>

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

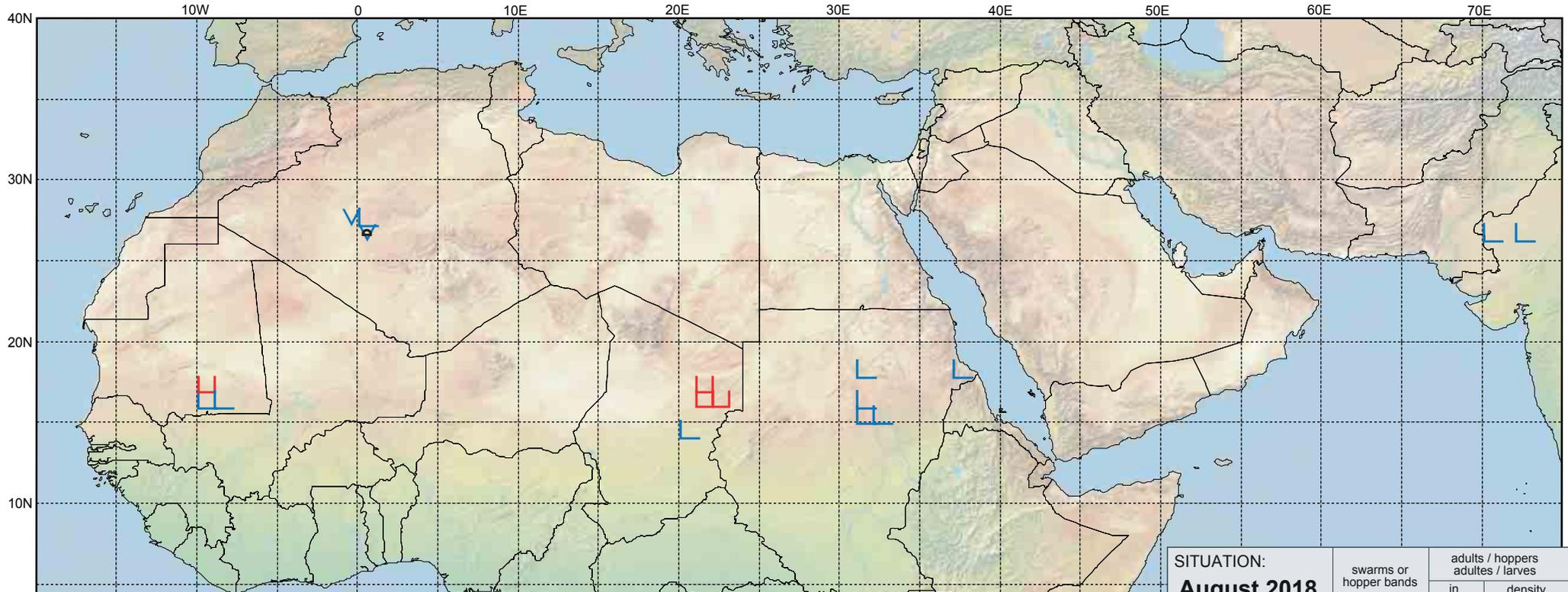
- Locust-affected countries in South-West Asia: Afghanistan, India, Iran and Pakistan.



Desert Locust Summary

Criquet pèlerin - Situation résumée

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FORECAST TO: PREVISION AU:	15.10.18	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: August 2018 août 2018	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 hoppers			
larvae larves			
hoppers & adults (combined symbol example) larves et adultes (exemple symboles combinés)			