Food and Agriculture Organization of the United Nations

No. 476 4 JUNE 2018

Desert Locust Bulletin

General situation during May 2018
Forecast until mid-July 2018

WESTERN REGION: CALM

SITUATION. Small-scale breeding occurred in central **Algeria**.

FORECAST. Small-scale breeding should commence about mid-July with the onset of seasonal rains in the northern Sahel of **Mauritania**, **Mali** and **Niger**. No significant developments are likely.

CENTRAL REGION: CALM

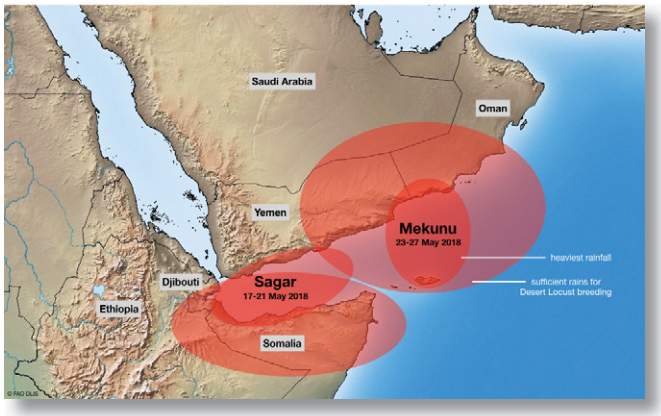
SITUATION. A few scattered adults were reported at one place on the southern coast of **Yemen**.

FORECAST. Breeding may occur in parts of southern **Yemen** and **Oman**, the Empty Quarter, northern **Somalia** and eastern **Ethiopia** where heavy rains fell from cyclones Sagar and Mekunu. Small-scale breeding will commence with the onset of seasonal rains in the interior of **Sudan**. No significant developments are likely.

EASTERN REGION: CALM

SITUATION. Isolated adults were reported at one place on the southeast coast of **Iran**.

FORECAST. Low numbers of adults are likely to appear along the **Indo-Pakistan border** where small-scale breeding will commence with the onset of the monsoon rains in about mid-July. No significant developments are likely.



The Desert Locust situation continued to remain calm during May

No locusts were reported during May except for local breeding in central Algeria and a few scattered adults on the southern coast of Yemen and Iran. Two unusually powerful tropical cyclones formed in the southern Arabian Sea during the second half of the month. Sagar was the strongest cyclone to ever make landfall in northwest Somalia after traversing the entire Gulf of Aden, bringing heavy rains and floods to Socotra, the southern coast of Yemen, Djibouti, coastal and plateau areas of northern Somalia and parts of eastern Ethiopia. Mekunu was the most intense cyclone on record to make landfall on the Arabian Peninsula, bringing three years of rain to Salalah, Oman and heavy showers fell in interior and adjacent areas of eastern Yemen and the Empty Quarter of Saudi Arabia. As a result, regular monitoring will be required in all areas that received good rains to detect any breeding that could occur in the next three months or more. Elsewhere, the scale of locust movement from spring to summer breeding areas this year will be extremely limited because very little breeding occurred during the past winter and spring. Consequently, only low numbers of adults are likely to appear in the northern Sahel between Mauritania and western Eritrea and along the Indo-Pakistan border. Small-scale breeding will commence with the onset of the seasonal rains from about mid-July onwards.

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 May 2018

Two cyclones brought unusually heavy rains and floods to southern Arabia and the Horn of Africa. Ecological conditions remained dry in the spring breeding areas of Northwest Africa and Southwest Asia.

WESTERN REGION

Very little rain fell during May except for light showers in northwest Libya during the second decade. Consequently, dry conditions persisted in all areas except in parts of the Draa and Ziz-Ghris Valleys along the southern side of the Atlas Mountains in Morocco and near irrigated perimeters in the central Sahara of Algeria. In West Africa, the Inter-Tropical Convergence Zone (ITCZ) continued its seasonal movement northward from the Gulf of Guinea. By the end of May, it had reached the southern portion of the summer breeding areas in Mali (Nara to Menaka) and Niger (Abalak to Tanout) but remained south of the summer breeding areas in Mauritania and Chad, which is about normal for this time of year. As a result, ecological conditions remained dry in the summer breeding areas of the northern Sahel.

CENTRAL REGION

Warm temperatures in the southern Arabian Sea caused two cyclones to develop during the second half of May that caused heavy rains, flooding, damage and loss of life. On 16 May, Cyclone Sagar formed off the coast of the Horn of Africa and moved west across the entire Gulf of Aden, making landfall on the northwest Somalia coast near Lughaye on the 19th. Thereafter, Sagar weakened over eastern Ethiopia by the 21st. Heavy rains fell along the southern coast of Yemen from Aden to the Oman border, coastal and plateau areas of northern Somalia, and parts of the Somali plateau, the railway area and Harar Highlands in eastern Ethiopia. A year's worth of rain fell in one day in Socotra island (200 mm) and Djibouti (110 mm). On 22 May, Cyclone Mekunu formed and moved north to Socotra on the 24th, making landfall at Salalah, Oman on the 25th and subsequently weakening as it moved inland over southern Oman and eastern Yemen where it dissipated by the 31st. Heavy rains extended along the coast from Al Ghaydah, eastern Yemen to Ash Shuwaymiyyah, southern Oman. Three years' worth of rain fell in Salalah (348 mm), heavy rains were reported in the Dhofar hills (291 mm) and interior at Thumrait (73 mm) and Marmul (86 mm), and moderate showers fell in the Empty Quarter of Saudi Arabia near the Yemen border at Al Kharkhir (1851N/5107E) and Umm Al Melh (1906N/5007E), and near the Omani border at Thabhloten (1942N/5357E), causing lakes to appear. Elsewhere, the Inter-Tropical Convergence Zone (ITCZ) continued its seasonal movement north over Sudan towards the summer breeding areas of the interior, reaching El Fasher, Sodiri and Khartoum by the end of May. However, ecological conditions remained dry and unfavourable for breeding.

EASTERN REGION

Light rains fell during the second decade of May in some parts of the spring breeding areas in southeast Iran and Baluchistan, Pakistan but ecological conditions remained mostly dry. Pre-monsoon rains fell at times throughout the month along both sides of the Indo-Pakistan border in Cholistan, Pakistan and Rajasthan, India where temperatures were high and vegetation was dry.

Area Treated

Algeria 228 ha (May)

Desert Locust Situation and Forecast

WESTERN REGION

Mauritania

• **SITUATION**

No locust activity was reported during May.

• **FORECAST**

Low numbers of adults may start to appear in the southeast where small-scale breeding is likely to commence with the onset of the summer rains.

Mali

• **SITUATION**

No locust activity was reported during May.

• **FORECAST**

Low numbers of adults may start to appear in the northeast where small-scale breeding is likely to commence with the onset of the summer rains.

Niger

• **SITUATION**

No locust activity was reported during May.

• **FORECAST**

Low numbers of adults may start to appear in the Tahoua area and on the Tamesna Plains where small-scale breeding is likely to commence with the onset of the summer rains.

Chad

• **SITUATION**

No locust activity was reported during May.

• **FORECAST**

No significant developments are likely.

Senegal

• **SITUATION**

No locust activity was reported during May.

• **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 May, solitarious hoppers of all instars, at densities up to 4 hoppers/m^2, and mainly scattered immature solitarious adults were seen at several places in the Amguiden area between Timimoun (2916N/0014E) and El Golea (3034N/0252E) as a result of small-scale breeding during April. Ground teams treated 228 ha. Elsewhere in the central Sahara, solitarious adults were seen laying near Adrar, and late instar hoppers and immature solitarious adults were present at one place northwest of In Salah (2712N/0229E). In the south, immature solitairous adults were seen at one place southwest of Tamanrasset (2250N/0528E). No locusts were seen in the east near Illizi (2630N/0825E).

• **FORECAST**

Fledging will continue during the first part of June in the central Sahara and, as conditions dry out, low numbers of adults are likely to move towards the south where they could mature and eventually breed if rains occur by the end of the forecast period.

Morocco

• **SITUATION**

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

• **FORECAST**

Isolated adults may be present in some places along the Draa Valley and in the northeast but breeding is unlikely to occur.

Libya

• **SITUATION**

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

• **FORECAST**

No significant developments are likely.

Tunisia

• **SITUATION**

No locust activity was reported during May.

• **FORECAST**

No significant developments are likely.

CENTRAL REGION

Sudan

• **SITUATION**

No reports were received in May.

• **FORECAST**

Low numbers of adults may start to appear in Darfur and Kordofan where small-scale breeding is likely to commence with the onset of the summer rains.

Eritrea

• **SITUATION**

No reports were received in May.

• **FORECAST**

Low numbers of adults may start to appear in the western lowlands where small-scale breeding is likely to commence with the onset of the summer rains.

Ethiopia

• **SITUATION**

No reports were received in May.

• **FORECAST**

There is a moderate risk that small-scale breeding could occur in areas that received rains from Cyclone Sagar in the railway area of Dire Dawa and on the plateau near Jijiga.

Djibouti

• **SITUATION**

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

• **FORECAST**

No significant developments are likely.

Somalia

• **SITUATION**

During May, no locusts were seen during surveys carried out in on the northwest plateau, escarpment and coast between Hargeisa (0931N/4402E) and Silil (1058N/4326E), and on the plateau in the northeast near Garowe (0824N/4829E).

• **FORECAST**

There is a moderate risk that small-scale breeding could occur in areas that received heavy rains associated with Cyclone Sagar.

Egypt

• **SITUATION**

No locusts were seen during surveys carried out in May along the shore of Lake Nasser near Tushka (2247N/3126E).

• **FORECAST**

No significant developments are likely.

Saudi Arabia

• **SITUATION**

During May, no locusts were seen on the central and northern Red Sea coast and subcoastal areas near

Masturah (2309N/3851E), Medinah (2430N/3935E) and Al Wajh (2615N/3627E), and in the interior between Khaybar (2542N/3917E) and Hail (2731N/4141E), and near Wadi Dawasir (2028N/4747E).

• **FORECAST**

Scattered adults may appear and breed in Yemen and Oman border arears of the Empty Quarter (Umm Al Melh to Thabhloten) that received rains from Cyclone Mekunu.

Yemen

• **SITUATION**

At the end of May, scattered immature solitarious adults were seen at one place on the southern coast between Ahwar (1333N/4644E) and Bir Ali (1401N/4820E).

• **FORECAST**

Small-scale breeding may occur in areas along the southern coast that received heavy rains from cyclones Sagar and Mekunu. Breeding could also take place in the eastern interior on the northeastern plateau from Thamud and the Oman border to the Empty Quarter as well as in recent areas of rainfall along the Red Sea coastal plains.

Oman

• **SITUATION**

During May, no locusts were seen during surveys carried out on the Musandam Peninsula, along the Batinah coast, and in the northern interior near Buraimi (2415N/5547E), Nizwa (2255N/5731E) and Adam (2223N/5731E).

• **FORECAST**

Low numbers of adults may appear and breed in coastal and interior areas of Dhofar and Al Wusta that received heavy rains 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 May, isolated mature solitarious locusts were present at one place on the southeast coast near Jask (2540N/5746E).

• **FORECAST**

No significant developments are likely.

Pakistan

• **SITUATION**

No locusts were seen during surveys carried out in May near Uthal (2548N/6637E) and Khuzdar (2749N/6639E) in Baluchistan.

• **FORECAST**

Low number of adults are likely to appear by the end of the forecast period in parts of the summer breeding areas between Cholistan and Tharparkar where small-scale breeding is expected to occur with the onset of the monsoon rains.

India

• **SITUATION**

No locusts were seen during surveys carried out in Rajasthan and Gujarat in May.

• **FORECAST**

Low number of adults are likely to appear by the end of the forecast period in parts of the summer breeding areas of Rajasthan and Gujarat where small-scale breeding is expected to occur with the onset of the monsoon rains.

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/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.

Calendar

The following activities are scheduled or planned:

- **CLCPRO.** Joint meeting of the 9th session and 13th Executive Committee, N'Djamena, Chad (18–22 June)
- **CLCPRO.** Regional Desert Locust Information Officer workshop, Algiers, Algeria (1–4 July)
- **CRC/SWAC.** Interregional Desert Locust Information Officer workshop, Cairo, Egypt (15–19 July)
- **CRC.** Simulation of Desert Locust contingency planning, Hurghada, Egypt (30 September – 4 October)
- **CRC.** Regional workshop on use of *Metarhizium acridum* in Desert Locust control, Hurghada, Egypt (7–9 October)
- **DLCC.** 41st session, Tunis, Tunisia (22–25 October)

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

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

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

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.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

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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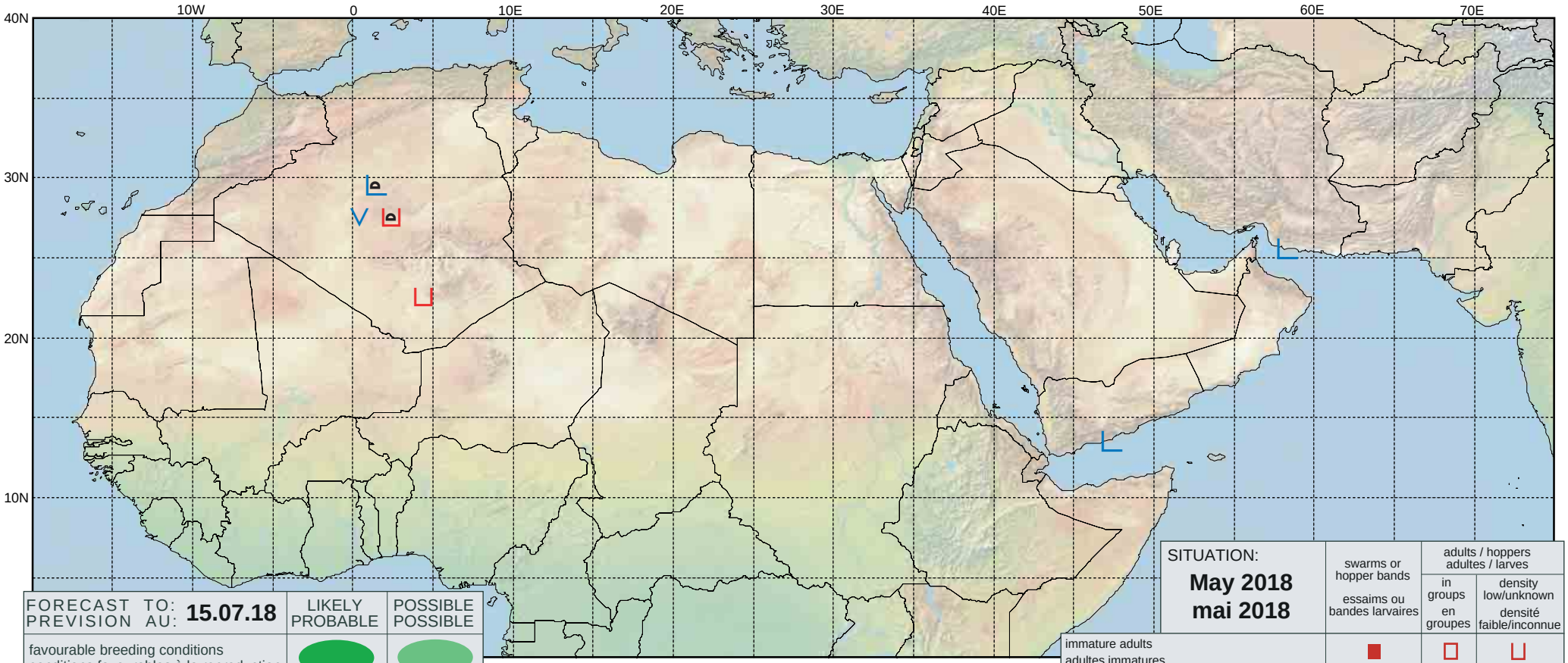

FORECAST TO: / PREVISION AU: **15.07.18**	LIKELY / PROBABLE	POSSIBLE / POSSIBLE
favourable breeding conditions conditions favourables à la reproduction		
major swarm(s) essaim(s) important(s)		
minor swarm(s) essaim(s) limité(s)		
non swarming adults adultes non essaimant		

SITUATION: **May 2018 / mai 2018**	swarms or hopper bands essaims ou bandes larvaires	adults / hoppers adultes / larves: in groups en groupes	adults / hoppers adultes / larves: 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)			