Food and Agriculture Organization of the United Nations

No. 511 3 MAY 2021

Desert Locust Bulletin

General situation during April 2021
Forecast until mid-June 2021

WESTERN REGION: CALM

SITUATION. Local breeding in **Algeria** and scattered adults in northern **Mali**.

FORECAST. No significant developments.

CENTRAL REGION: THREAT

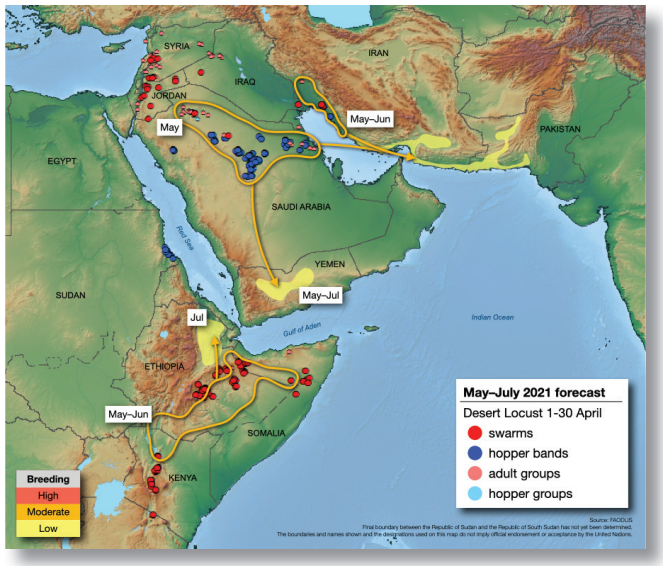
SITUATION. Swarms decline in **Kenya** (136 ha treated), become mature in **Ethiopia** (14 370 ha) and start laying while some move to NW Somalia, and those in NE **Somalia** (5 120 ha) remain immature; an immature swarm in northeast **Tanzania**. Groups and bands fledge on the Red Sea coast of **Sudan** (4 640 ha). Widespread hatching and bands in **Saudi Arabia** (8 250 ha) interior, fledging and immature adult groups form at end of the month. Strong southerly winds carry mature adult groups and small swarms from Saudi Arabia to **Iraq** (140 ha), **Jordan** (1 500 ha), **Syria** (2 867 ha), **Lebanon** (406 ha), **Israel**, and Sinai in **Egypt** (307 ha).

FORECAST. Hatching and band formation in **Ethiopia**, N **Somalia** and perhaps localized in N **Kenya**. Limited hatching and band formation possible in **Iraq**, **Jordan**, **Syria**, **Israel** and Sinai (**Egypt**). Immature adult groups and small swarms form in **Saudi Arabia** interior that could move to Yemen, countries along the Persian Gulf and, during southerly winds, to Jordan and Iraq; breeding in **Yemen** interior.

EASTERN REGION: CALM

SITUATION. Hatching and band formation in southwest **Iran** (4 718 ha treated).

FORECAST. Small adult groups to form in southwest **Iran** that may be supplemented by groups and small swarms arriving from Arabia, which will move east along the southern coast towards **Pakistan**.



Laying in Ethiopia and swarms in the Near East

The upsurge continued to decline in the Horn of Africa due to control operations that treated substantially less than the previous month as swarms dwindled. Nevertheless, good rains allowed remaining swarms to mature in Ethiopia where they started to lay eggs in late April that are expected to hatch in early May, giving rise to hopper bands. Similar breeding is likely in northern Somalia while localized breeding could occur in parts of northern Kenya by any remnant infestations. Therefore, intense vigilance should be maintained in the region. In the Near East, unusually strong southerly winds carried groups of mature adults and small swarms north from Saudi Arabia to Iraq, Jordan, Israel, Lebanon and Syria that nearly reached Turkey while others appeared in the Sinai Peninsula. Limited hatching and band formation may occur in a few places. In Saudi Arabia, widespread hatching and hopper band formation continued in the interior. Fledging started in late April and a few groups of immature adults began to form. This is expected to increase during May when small swarms may form that could move south to Yemen, east through the Persian Gulf and, during southerly winds, north to Jordan and Iraq. In Iran, hatching and a few bands formed in the southwest where immature adults are likely to form in May and move east towards Pakistan. The situation remained calm in other regions and no significant developments are expected.

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.

Telephone: +39 06 570 52420 (7 days/week, 24 hr)
E-mail: eclo@fao.org / faodlislocust@gmail.com
Internet: www.fao.org/ag/locusts
Facebook/Twitter: faolocust

Weather & Ecological Conditions in April 2021

Good rains fell in the Horn of Africa, allowing conditions to be favourable for breeding. Good rains also fell in the interior of Yemen. Strong southerly winds at times over Arabia.

WESTERN REGION

No significant rain fell during April and mainly dry conditions prevailed throughout the region. Consequently, breeding conditions were not favourable except in some localized areas near irrigated perimeters in the Adrar Valley in the Central Sahara of Algeria. In Morocco, vegetation was green south of the Atlas Mountains in a few places of the Draa and Ziz-Ghris valleys.

CENTRAL REGION

In East Africa, southerly winds progressed northwards during the month, bringing light to moderate showers to Mandera and Wajir counties in northeast Kenya during the first two decades with lighter showers at times in Turkana county in the northwest. The rains extended over southern Ethiopia, reaching the Bale Mountains during the first decade and Dire Dawa and northwest Somalia during the second decade as well as parts of the Somali region in eastern Ethiopia and adjacent areas of central Somalia. By the end of the month, southerly winds were established over most of the Horn of Africa, having reached northern Somalia. Light to moderate rains fell during the third decade on the plateau and in northeast Somalia with heavier rainfall in the northwest as showers continued in eastern Ethiopia. Consequently, breeding conditions were favourable in southern and eastern Oromia, extending east to the lowlands near Kebri Dehar in the Somali region of Ethiopia. Conditions were improving on the plateau in northern Somalia. In Yemen, moderate to heavy rains fell throughout the interior on 25–29 April, causing flooding in some areas. The rains fell from Marib and Ataq to Wadi Hadhramaut, extending to the plateau between Minwakh and Thamud, and reaching the southern edge of the Empty Quarter. Lighter showers fell along parts of the southern coast. Consequently, breeding conditions are expected to improve in the interior. In Saudi Arabia, light rains fell at times during the second decade in the interior spring breeding areas west of Riyadh and south of Hail. There were also several consecutive days of strong southerly winds, extending from Saudi Arabia to northern Syria.

EASTERN REGION

Light to moderate rains fell in coastal and subcoastal areas of Khuzestan province in southwest Iran during the first decade of April that extended to Bushehr in the second decade. Consequently, ecological conditions remained favourable for breeding in the southwest but were unfavourable in southeast Iran and southwest Pakistan because of little rainfall and prevailing dry conditions. Light to moderate showers fell in southern Sindh province north of Karachi during the second decade.

Area Treated

Control operations declined substantially in April, treating 42 419 ha, compared to 95 795 ha in March.

Egypt	307 ha
Ethiopia	15 066 ha (March)
	14 370 ha
Iran	5 261 ha (March)
	4 718 ha
Iraq	140 ha
Jordan	1 500 ha (est.)
Kenya	136 ha
Kuwait	24 ha (March)
	2 ha (April)
Lebanon	406 ha
Saudi Arabia	8 250 ha
Somalia	16 367 ha (March)
	5 120 ha
Sudan	4 640 ha
Syria	2 867 ha

Desert Locust Situation and Forecast

WESTERN REGION

MAURITANIA

• **SITUATION**

No locusts were reported during April.

• **FORECAST**

No significant developments are likely.

MALI

• **SITUATION**

During April, scattered immature and mature solitarious adults were reported at four places in the Timetrine area of the north near Ti-n-kar (1926N/0022W) and west of the Tilemsi Valley.

• **FORECAST**

Low numbers of adults are likely to persist in parts of the Adrar des Iforas and Timetrine. No significant developments are likely.

Niger

• **SITUATION**

No locusts were reported during April.

• **FORECAST**

Isolated locusts are likely to be present and will persist in parts of the Air Mountains.

Chad

• **SITUATION**

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, isolated immature solitarious adults were present in the southern Sahara west of Tamanrasset (2250N/0528E). Scattered mid and late instar solitarious hoppers and mature solitarious adults were present near irrigated areas in the Adrar Valley (2753N/0017W) of the central Sahara. No locusts were seen further north near Bechar (3135N/0217W).

• **FORECAST**

Scattered adults may persist in the Adrar Valley and west of Tamanrasset.

Morocco

• **SITUATION**

No surveys were conducted, and no locusts were reported during April.

• **FORECAST**

Isolated adults may be present in a few places south of the Atlas Mountains in the Draa and Ziz-Ghris valleys. No significant developments are likely.

Libya

• **SITUATION**

No surveys were conducted, and no locusts were reported during April.

• **FORECAST**

No significant developments are likely.

Tunisia

• **SITUATION**

No locusts were reported during April.

• **FORECAST**

No significant developments are likely.

CENTRAL REGION

Sudan

• **SITUATION**

During April, mainly mid to late instar hopper groups and bands were present on the Red Sea coast between Suakin (1906N/3719E) and Tokar (1827N/3741E), and fledging commenced during the last week. Scattered immature and mature solitarious adults were seen nearby. Control operations treated 4 640 ha of which 2 950 ha were by air.

• **FORECAST**

A limited number of small groups of adults may form on the Red Sea coast between Suakin and Tokar. As conditions dry out further, the adults are likely to move inland to the Nile and Atbara river valleys.

Eritrea

• **SITUATION**

During the first decade of April, no locusts were seen during surveys carried out on the northern Red Sea coastal plains.

• **FORECAST**

No significant developments are likely.

Ethiopia

• **SITUATION**

During April, swarms declined but still persisted east of the Rift Valley where they remained immature in the Ahmar Mountains north of Bale Robe (0707N/4000E) and the Harar Highlands south of Dire Dawa (0935N/4150E). After mid-month, an increasing number of swarms matured due to rainfall and some swarms moved north to Jijiga (0922N/4250E) as well as east to the lowlands of the Somali region near Degeh Bur (0813N/4333E). Control operations treated 14 370 ha of which 12 620 ha were by air.

• **FORECAST**

Swarm laying is expected to increase in eastern Oromia and north of the Shabelle River in Somali region during May. Breeding could also take place in southern Oromia and Somali regions. Hatching should commence from early May onwards, giving rise to hopper bands that would start to fledge after mid-June.

Djibouti

• **SITUATION**

No surveys were undertaken, and no locusts were reported during April.

• **FORECAST**

There remains a low risk of a few swarms appearing in the south at times from adjacent areas of Ethiopia and northwest Somalia.

Somalia

• **SITUATION**

During April, a few swarms persisted and remained immature in the northeast mainly near Garowe (0824N/4829E) but also north to Gardo (0930N/4905E), south to Galkayo (0646N/4725E), and west to Las Anod (0828N/4721E). Immature adult groups were seen near Erigavo (1040N/4720E) and scattered immature and mature adults were present on the plateau further west to Burco (0931N/4533E). In the northwest, immature and mature swarms from adjacent areas of Ethiopia appeared on the plateau between Hargeisa (0931N/4402E) and Boroma (0956N/4313E) on 26–27 April. Control operations treated 5 120 ha of which 1 510 ha were by air.

• **FORECAST**

Swarm breeding is likely to occur during May in parts of the northern plateau that received recent rain. This will give rise to hatching and band formation from mid-May onwards.

Kenya

• **SITUATION**

During April, only a few small immature swarms persisted and were partially maturing along the eastern side of the Rift Valley between Nakuru (0017S/3605E) and Lake Turkana in Nyandarua, Nakuru, Laikipia and Samburu counties. The last swarm was treated in Samburu county near Maralal (0106N/3642E) on the 23rd. Aerial operations treated 136 ha during April.

• **FORECAST**

A few small residual infestations may remain near the Rift Valley and in parts of the north. If so, limited breeding could occur in sandy areas of the northern counties that have received recent rainfall, causing low numbers of small hopper groups and bands to form.

Tanzania

• **SITUATION**

An immature swarm was reported near the Kenya border to the northwest of Longido (0244N/3642E) on 1 and 4 April. This is the same area where a similar swarm was seen the week before.

• **FORECAST**

No significant developments are likely.

Egypt

• **SITUATION**

On 23 April, a few small mature adult groups from the north first arrived in the Sinai along the Gulf of Aqaba coast at Taba (2929N/3453E). Some of the groups moved further south to Nuweiba (2902N/3440E) on the 25th and Dahab (2830N/3430E) on the 28th while others remained in the Taba area. Ground teams treated 307 ha. In the southeast near the Sudan border, isolated maturing solitarious adults persisted along Wadi Diib west of Abu Ramad (2224N/3624E). No locusts were present elsewhere along the coast to Marsa Alam (2504N/3454E) or inland near Lake Nasser.

• **FORECAST**

Locust numbers will decline along the Red Sea coast in the southeast and in the Sinai. No significant developments are likely.

Saudi Arabia

• **SITUATION**

During April, hopper groups and bands were present over an extensive area of the interior from north of Hail (2731N/4141E) to Al Dawadimi (2430N/4422E) and Dammam (2625N/5003E) as well as on the eastern side of the Asir Mountains between Tabuk (2823N/3635E) and Khaybar (2542N/3917E). Groups of mature adults were seen copulating and laying in the Al Jawf (2948N/3952E) area until mid-month. Mature adult groups were also present in the east between Dammam, Hafar Al Batin (2821N/4556E) and south of Kuwait. A few mature swarms were seen on the 4th near Al Jawf and northeast of Hail. While there were still early instar hoppers present during the last week, an increasing number of hoppers had reached fifth instar and were fledging to form a few immature adult groups near Hail and south of Tabuk. On the northern Red Sea coast, scattered immature and mature adults were present south of Yenbo (2405N/3802E). Control teams treated 8 250 ha of which 500 ha were by air.

• **FORECAST**

Fledging will increase during May in the interior, causing an increasing number of immature adult groups and perhaps small swarms to form. Low numbers of immature groups and swarms could move south towards Yemen and east through the Persian Gulf. A northward movement could occur during periods of southerly winds.

Yemen

• **SITUATION**

During April, scattered immature and mature solitarious adults persisted on the Red Sea coastal plains between Suq Abs (1600N/4312E) and Bayt Al Faqih (1430N/4317E). No locusts were seen on the southern coast near Aden (1250N/4503E).

• **FORECAST**

Scattered adults are perhaps a few small groups are likely to appear in the interior between Marib and Wadi Hadhramaut. Breeding is likely to occur in areas of recent rainfall. This may be supplemented by immature groups and small swarms arriving from Saudi Arabia after mid-May.

Oman

• **SITUATION**

During April, no locusts were seen in the northern interior near Nizwa (2255N/5731E) and Buraimi (2415N/5547E), on the northern coast near Rustaq (2323N/5725E), and on the Musandam Peninsula.

• **FORECAST**

No significant developments are likely.

Kuwait

• **SITUATION**

On 1 April, at least one small group of mature adults were present at Al Wafra farm (2838N/4808E) in the southeast near the Saudi Arabia border. Some of the adults were copulating. Control teams treated 2 ha.

• **FORECAST**

Limited breeding could take place on the edge of farms in the south. A few immature adult groups could appear from the south during periods of strong southwesterly or southerly winds.

Iraq

• **SITUATION**

On 8 April, a small mature swarm was seen at Al Rutbah (3302N/4017E) in the western governorate of Al Anbar. On 26–29 April, ground teams treated 140 ha of mature adult groups in farms along the Euphrates Valley near Rawa (3429N/4154E) and Qa'im (3420N/4111E) close to the Syria border.

• **FORECAST**

Local breeding may occur along crop edges in the northern Euphrates Valley near the Syria border. A few immature adult groups and perhaps small swarmlets from the south could appear in the southern governorates of Al Anbar, Karbala, Al Najaf and Al Muthanna during periods of strong southwesterly or southerly winds.

Jordan

• **SITUATION**

During several days of unusually strong southerly winds, a few small mature adult groups and swarmlets from Saudi Arabia arrived in the south near Al-Mudawwara (2920N/3602E) and in the east near Ruwaished (3230N/3812E) and the nearby Rawdat Al-Bandan Reserve on 14–15 April. More small groups of mature adults appeared on the 18–19th in the southern districts of Amman (3157N/3556E) and in the Jordanian Highlands near Kerak (3111N/3543E). On the 21st, similar infestations were mainly concentrated near Azraq (3150N/3649E) but were also reported on farms near Al Jafr (3019N/3610E) in Ma'an Governorate, and in the Araba Valley near Ghor Safi (3102N73528E). Ground and aerial teams treated an estimated 1 500 ha.

• **FORECAST**

Local breeding may occur along crop edges near Mudawwara and Azraq. A few immature adult groups and perhaps small swarmlets could appear from the south during periods of strong southerly or southeasterly winds from about the second week of May onwards.

Israel

• **SITUATION**

On 19–23 April, a few small, low-density groups of mature adults appeared south of the Dead Sea at three places in the Araba Valley near the Jordan border between Ein Tamar (3056N/3522E) and Yahel (3005N/3508E).

• **FORECAST**

Local breeding may occur along crop edges in a few places of the Araba Valley.

Syria

• **SITUATION**

As a result of several days of unusually strong southerly winds, small groups of mature adults arrived from the south in the Euphrates Valley of Abu Kamal district in the southeast on 17 April near the Iraq border and Ash-Shafah (3434N/4056E) where they later crossed the river to Al-Sayyal (3434N/4054E). Some of the adults settled near crops at densities of 10–20 adults/m^2 and were seen copulating while others subsequently moved northwest to Deir ez-Zur (3520N/4007E). In the west, a few small groups of mature adults and swarmlets arrived from the south on 18–19 April and were seen north of the Jordan border near As-Suwayda (3242N/3634E) at densities up to 40 adults/m^2. A small mature swarmlet appeared further north near Qarah (3409N/3645E) on the 22nd and movements occurred across the Lebanon border. Egg-laying was seen nearby in the Qalamoun Mountains north of Damascus (3331N/3618E) on the 23rd. Another northward movement occurred on the 24th during strong southerly winds, carrying adult groups as far north as Maskanah (3558N/3802E), Aleppo (3612N/3709E) and the Mediterranean coast near Latakia (3531N/3547E). A few mature adult groups were seen during the last week in the southwest near Quneitra (3307N/3549E). Ground teams treated 2 867 ha.

• **FORECAST**

Local breeding may occur along crop edges in a few places near As-Suwayda and in the Euphrates Valley where hatching could commence during the first week of May, giving rise to small hopper groups and bands. A few immature adult groups could appear from the south during periods of strong southerly winds.

Lebanon

• **SITUATION**

On 22 April, a few small groups of mature adults and swarmlets crossed the Anti-Lebanon Mountains from Syria into the Bekaa Valley near Aarsal (3410N/3625E) and Ras Baalbek (3416N/3625E). On the following day, at least one group returned to Syria as the winds shifted while other groups moved south in valley to Baalbek (3400N/3613E). On the 27th, a mature adult group was reported on the coast north of Beirut in Keserwan district. Ground and aerial control operations treated 406 ha.

• FORECAST

There is a low to moderate risk of local breeding in a few places of the Bekaa Valley where hatching could start about the second week of May, giving rise to small hopper groups and bands. Limited cross-border movements of small adult groups from adjacent areas of Syria could take place during periods of warm southerly winds.

Bahrain, Qatar and UAE

• FORECAST

A few immature adult groups or small swarms from eastern Saudi Arabia may transit in an easterly direction from mid-May onwards.

D.R. Congo, Palestine, South Sudan, Turkey and Uganda

• FORECAST

No significant developments are likely.

EASTERN REGION

Iran

• SITUATION

During the first week of April, a few mature adult groups and swarms were seen in Khuzestan Province on the coast north of Bushehr (2854N/5050E) and further inland near Dezful (3224N/4824E) at the foothills of the Zagros Mountains. A few adult groups persisted during the following week. Early instar hopper bands were seen at a few places near the coast from laying by earlier swarms that occurred from late March and the first week of April with hatching commencing at mid-month. On the 21st, a mature swarm was seen on the Iraq border near Abadan (3021N/4817E) that is likely to have arrived on strong southerly winds. Ground teams treated 4 718 ha. No locusts were seen or reported elsewhere along the southern coast and in subcoastal areas from Hormozgan to Sistan-Baluchistan and in the northeastern province of South Khorasan.

• FORECAST

Isolated adults are likely to be present in a few areas along the Hormozgan and Sistan-Baluchistan coast and in the Jaz Murian Basin. Small immature adult groups could form on the southwest coast near Bushehr and in a few coastal and inland areas of Khuzestan from the last week of May onwards. This may be supplemented by immature groups and small swarms arriving from eastern Saudi Arabia. In both cases, the adults are likely to move east along the southern coast towards Indo-Pakistan summer breeding areas.

Pakistan

• SITUATION

During April, no locusts were seen or reported in coastal and interior areas of Baluchistan.

• FORECAST

Isolated adults may be present in a few areas of Baluchistan. From late May onwards, there is low to moderate risk of few small immature groups arriving from the Persian Gulf in coastal areas of Baluchistan and continuing to the summer breeding areas.

India

• SITUATION

During April, no locusts were seen by surveys in Rajasthan and Gujarat.

• FORECAST

No significant developments are likely.

Afghanistan

• SITUATION

No locust reports were received during March.

• 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) periods. Countries should report at least once/month and send RAMSES data with a brief interpretation.

Caution (yellow), threat (orange) and danger (red) periods. During locust outbreaks, upsurges and plagues, RAMSES output files with a brief interpretation should be sent regularly every three days.

Bulletins. Affected countries are encouraged to prepare decadal and monthly bulletins summarizing the situation and share them with other countries.

Reporting. All information should be sent by e-mail to the FAO Desert Locust Information Service (eclo@fao.org and faodlislocust@gmail.com). Reports received by the first two days of the new month will be included in the FAO Desert Locust Bulletin; 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.

Desert Locust upsurge and response

On 17 January 2020, the Director-General of FAO activated the L3 protocols, the highest emergency level in the United Nations system, in FAO to allow fast-tracking an effective response to the upsurge in the Horn of Africa.
[www.fao.org/locusts]

eLocust3 tools

FAO has developed three new free tools – a mobile app (eLocust3m), a GPS app (eLocust3g), and an Internet form (eLocust3w) – for improving survey and control reporting by field teams and communities. The data is critical for monitoring the situation and organizing control operations in each country and feeds into FAO's global early warning system.
[http://www.fao.org/ag/locusts/en/activ/2573/eL3suite/index.html]

Desert Locust posters

FAO in collaboration with OCHA has developed six simple, easy to understand posters for communities that may be affected by locusts. The purpose is to provide basic messaging on pesticide containers, safety measures, pesticide exposure, farmer advice, Desert Locust, and following instructions. The posters can be edited.
[http://www.fao.org/ag/locusts/en/publicat/2581/index.html]

Desert Locust animation

FAO in collaboration with SWABO has produced a simple animation that explains the danger of Desert Locust.
[https://www.youtube.com/watch?v=3TOhuA-v1m4]

Locust Hub

FAO in partnership with ESRI operates a centralized hub for the latest Desert Locust data and progress on the emergency response to the Desert Locust upsurge.
[https://locust-hub-hqfao.hub.arcgis.com]

Hand-in-Hand geospatial platform

FAO has developed the Hand-in-Hand geospatial platform that also integrates Desert Locust data from the Locust Hub.
[https://data.apps.fao.org]

Calendar

- **CLCPRO.** 10th session, Algiers, Algeria (October, tbc)

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 upsurges and 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 upsurges and plagues only: Bahrain, D.R. Congo, 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/ESRI Locust Hub. Desert Locust maps and data download, and emergency response progress
https://locust-hub-hqfao.hub.arcgis.com

FAO 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

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 suite. Digital tools for data collection in the field (mobile app, web form, GPS)
http://www.fao.org/ag/locusts/en/activ/DLIS/eL3suite/index.html

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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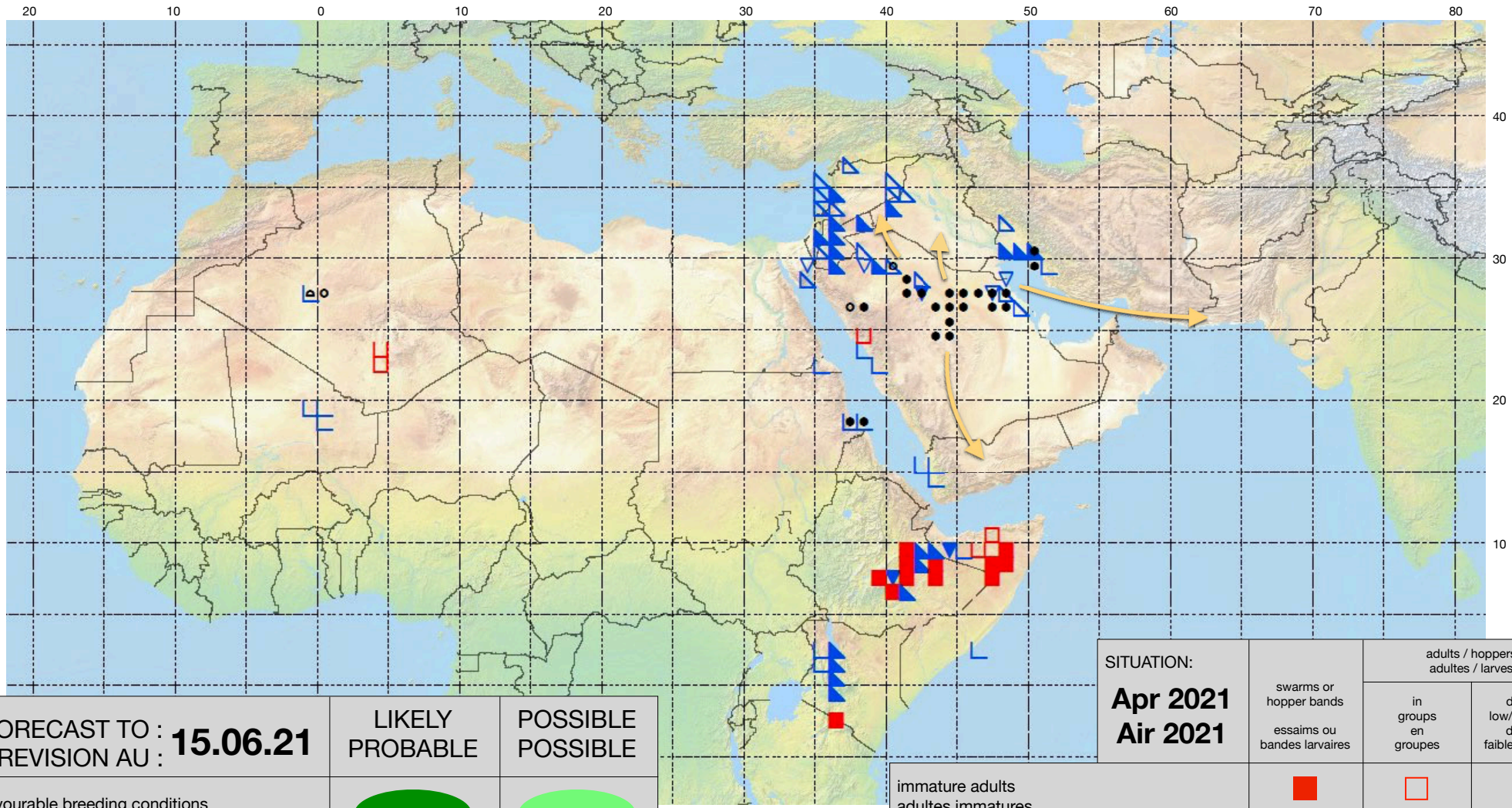

FORECAST TO : PREVISION AU : **15.06.21**	LIKELY PROBABLE	POSSIBLE POSSIBLE
favourable breeding conditions conditions favourables à la reproduction		
major swarm(s) essaim(s) important(s)		
minor swarms(s) essaim(s) limité(s)		
non swarming adults adults non essaimant		

SITUATION: **Apr 2021** **Air 2021**	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 partially 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 example) larves et adultes (symboles combinés)	◘	◙	⊔