Report of Monitoring, Early Warning and Assessment of Desert Locust

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Desert Locust Monitoring and Loss Assessment in Egypt, Somalia and Saudi Arabia (June 2025)

Integrated with multi-source Earth Observation data, e.g. meteorological data, field data, and remote sensing data (such as MODIS in the US, etc), and self-developed models and algorithms for Desert Locust monitoring and forecasting, the research team constructed the 'Vegetation pests and diseases monitoring and forecasting system', which could regularly release thematical maps and reports on Desert Locust.

The remote sensing monitoring results showed that, in June 2025, desert locusts were primarily distributed in the western desert and the central Nile Valley of Egypt, the northwestern coastal and adjacent plateau areas of Somalia, and the northern and central inland areas of Saudi Arabia, affecting 15.7, 14.7, and 17.8 thousand hectares of vegetation, respectively. Over the next two months, rainfall is expected to remain low across most parts of Egypt, resulting in continued population decline and gradual southward migration to Sudan, with only scattered activity persisting in irrigated areas. In Somalia, limited rainfall may occur in the northwestern highlands, but overall dry conditions will remain unfavorable for breeding, keeping locust numbers at low levels. In Saudi Arabia, little rainfall is expected in the northern and central inland regions ,where vegetation will remain dry. A few adult locusts may move southward into Yemen. This period coincides with the main growing and harvest season for food crops in Egypt and Somalia, and the primary planting and growing season for food crops in Saudi Arabia. Therefore, continuous monitoring of desert locust dynamics remains essential to prevent recurring damage to agricultural and pastoral production. The specific results are as follows:

■ 1. Desert Locust Monitoring and Loss Assessment in Egypt

In June 2025, most parts of Egypt experienced little rainfall and remain arid, creating unfavorable conditions for desert locust reproduction following the end of spring breeding. Locust populations continued to decline, with most locusts found in irrigated areas of the western desert and along the central Nile Valley. A few late-instar hoppers and immature adults were observed in localized areas, but overall distribution remained at low density. Monitoring results showed that in June, desert locusts affected 15.7 thousand hectares of vegetation in Egypt, including 5.1 thousand hectares of cropland, 6.4 thousand hectares of grassland, and 4.2 thousand hectares of shrubland (Figure 1), accounting for 0.14%, 0.47%, and 0.52% of the country's total cropland, grassland, and shrubland areas, respectively. New Valley Governorate recorded the most extensive damage, with 6.4 thousand hectares of affected vegetation, followed by Aswan with 5.2 thousand hectares. Qina and Asyut were also affected, with 2.4 and 1.7 thousand hectares of vegetation damage, respectively.

Fig.1 Monitoring of Desert Locust damage in Egypt (June 2025)

■ 2. Desert Locust Monitoring and Loss Assessment in Somalia

In June 2025, Somalia experienced little rainfall and remained dry, creating unfavorable conditions for desert locust egg-laying and reproduction, resulting in a further decline in locust populations. However, some activity persisted in localized areas, mainly along the northwestern coast and adjacent plateau regions. Monitoring results showed that in June, desert locusts affected 14.7 thousand hectares of vegetation in Somalia, including 5.8 thousand hectares of grassland and 8.9 thousand hectares of shrubland (Figure 2), accounting for 0.02% and 0.04% of the country's total grassland and shrubland areas, respectively. Togdheer recorded the most extensive damage, with 5.4 thousand hectares of

affected vegetation, followed by Sanaag with 4.3 thousand hectares. Awdal and North-West were also affected, with 3.2 and 1.8 thousand hectares of vegetation damage, respectively.

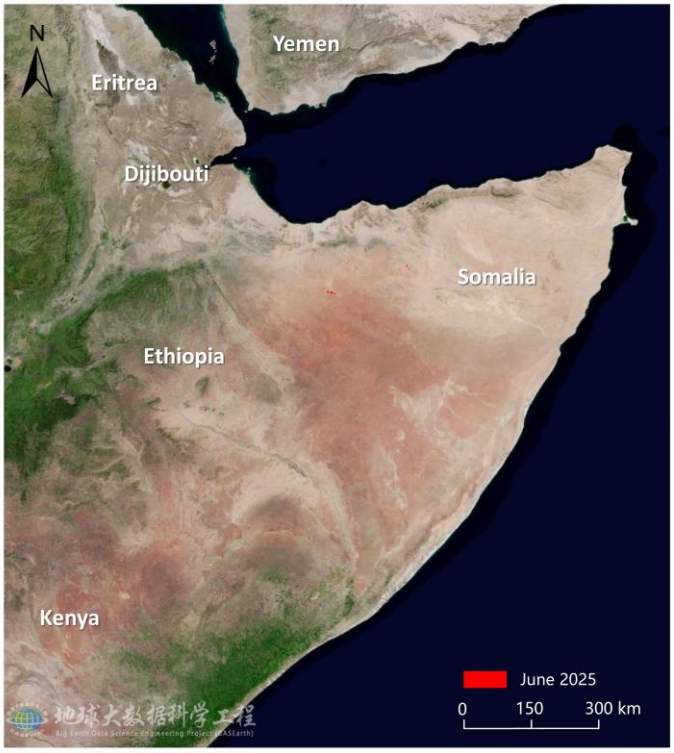

Fig.2 Monitoring of Desert Locust damage in Somalia (June 2025)

■ 3. Desert Locust Monitoring and Loss Assessment in Saudi Arabia

In June 2025, northern and central inland regions of Saudi Arabia received little rainfall, and vegetation remained dry, creating unfavorable conditions for further breeding. Locust populations declined significantly, with activity mainly concentrated in Ha'il and surrounding areas, and extending locally to Ar Riyad, Tabuk, and Al Quassim. Monitoring results showed that in June, desert locusts affected 17.8 thousand hectares of vegetation in Saudi Arabia, including 4.3 thousand hectares of cropland, 6.1 thousand hectares of grassland, and 7.4 thousand hectares of shrubland (Figure 3), accounting for 1.96%, 0.31%, and 0.18% of the country's total cropland, grassland, and shrubland areas, respectively. Ha'il recorded the most extensive damage, with 7.7 thousand hectares of affected vegetation, followed by Ar Riyad with 5.5 thousand hectares. Tabuk and Al Quassim were also affected, with 2.6 and 2.0 thousand hectares of vegetation damage, respectively.

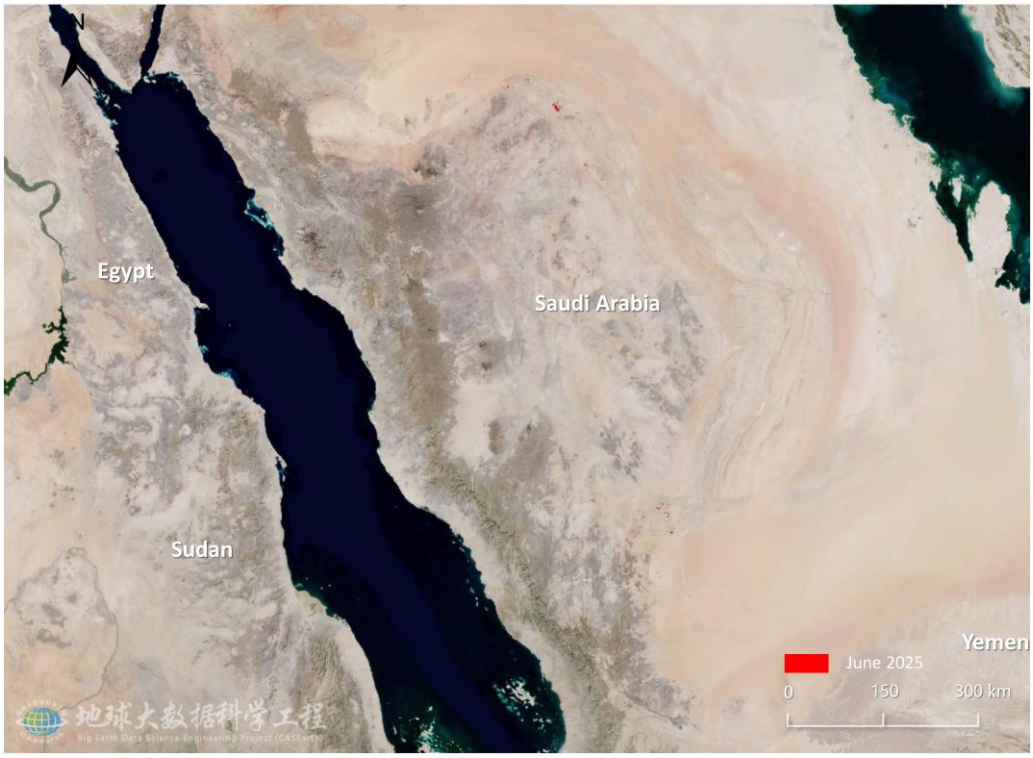

Fig.3 Monitoring of Desert Locust damage in Saudi Arabia (June 2025)

The comprehensive analysis suggests that, in the next two months, rainfall is expected to remain low across most parts of Egypt, resulting in continued population decline and gradual southward migration to Sudan, with only scattered activity persisting in irrigated areas. In Somalia, limited rainfall may occur in the northwestern highlands, but overall dry conditions will remain unfavorable for breeding, keeping locust numbers at low levels. In Saudi Arabia, northern and central inland regions will receive little rainfall, and vegetation will remain dry, with a few adult locusts possibly moving southward into Yemen. Continuous monitoring of desert locust dynamics in Egypt, Somalia and Saudi Arabia is essential to prevent repeated losses in crop growth and agricultural production.

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