

Food security under attack: Africa's struggle against parasitic weeds

Parasitic plants infest other plants to extract water, nutrients, and metabolites, causing great damage to their hosts. When these plants invade food crops, they turn into ferocious weeds. We overlaid a map of rainfed rice production areas with parasitic weed observation data retrieved from public herbaria to visualize the regional distribution in Africa of the four most important species: *Striga hermonthica*, *S. asiatica*, *S. aspera* (Fig. 1a, 1b, 1c), and *Rhamphicarpa fistulosa* (Fig. 2).

Striga species occur in at least 31 countries (Fig. 3a), whereas *Rhamphicarpa fistulosa* threatens rice production in at least 28 countries with rainfed rice systems (Fig. 3b). Together, they invade an estimated 1.34 million hectares of rainfed rice area in Africa. The total economic loss inflicted by parasitic weeds in rice in Africa is estimated at USD 200 million, with an annual increase of USD 30 million.

Targeted investments in research, development, and capacity building are needed to reverse this trend. The countries where such investments would yield the highest payoff are Nigeria, Guinea, Mali, Côte d'Ivoire, Cameroon, Tanzania, Madagascar, Uganda, Sierra Leone, and Burkina Faso. ■

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Striga aspera



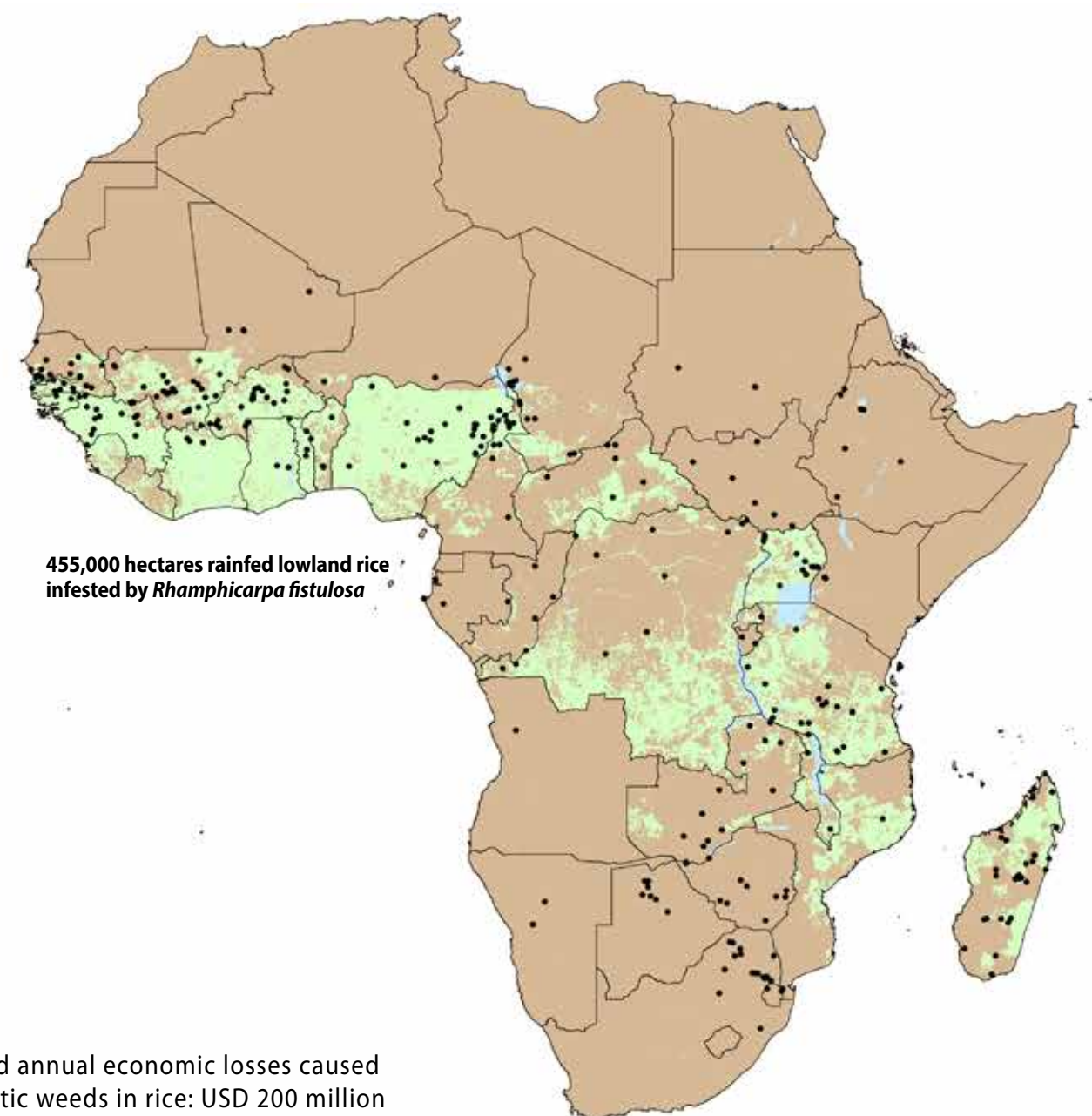
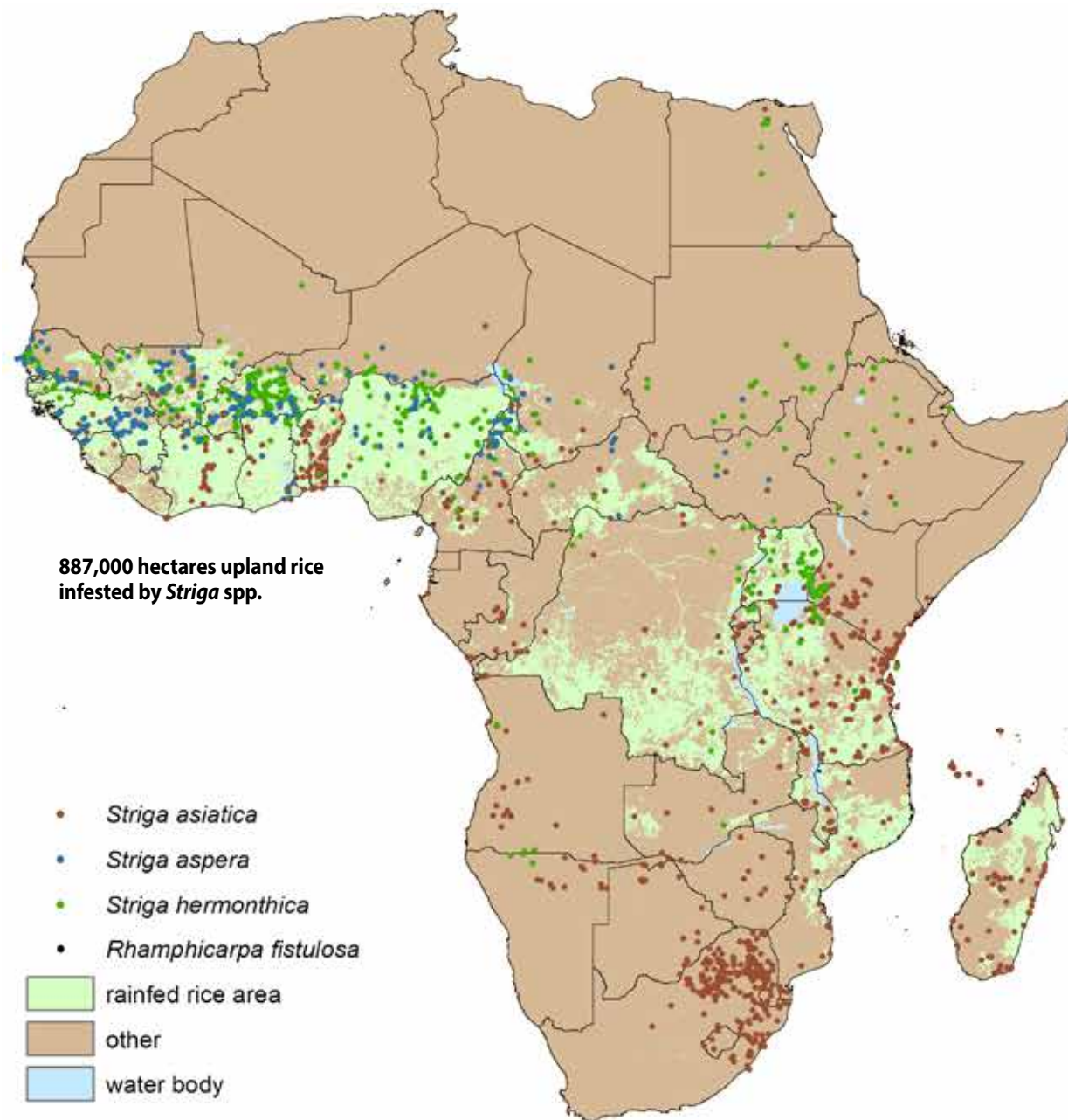
Striga hermonthica



Striga asiatica



Rhamphicarpa fistulosa



Estimated annual economic losses caused by parasitic weeds in rice: USD 200 million