

### Mini data sheet on *Lycium ferocissimum* (Solanaceae)

*Lycium ferocissimum* (Solanaceae) was added to the EPPO List of Invasive Alien Plants in 2023. You can view here the data which was previously available from the EPPO Alert List (added to the EPPO Alert List in 2020 - deleted in 2023).

#### Why

*Lycium ferocissimum* has recently been identified as naturalised in France (2019) in the coastal area of Aude. The species is native to South Africa and is reported as invasive in Australia and New Zealand. The species poses a risk to natural plant communities and associated ecosystem services. The species seems to be adapted to the Mediterranean climate and therefore, there is the potential for further spread and establishment.

#### Geographical distribution

**EPPO region:** Cyprus, France, Morocco, Spain, Tunisia.

**Asia:** Indonesia.

**Africa:** Namibia

**North America:** Mexico, United States (California).

**South America:** Bolivia.

**Oceania:** Australia, New Zealand.

#### Morphology

Thorny shrub 2 - 3 m in height though it can reach 5 m.

**Stems:** highly branched with twigs which have strong terminal and lateral spines 3-8 cm.

**Leaves:** alternate, bunched in clusters by (2)3-6(10), sometimes isolated on young stems, subsessile or with a very short (1 mm) petiole. The blade is fleshy, bright green and often glossy, (6)12-30(35) mm long by (3)4-8(10) mm wide; it is entire, obovate to elliptic, with obtuse or suboblate tips.

**Inflorescences:** inflorescence is reduced to a single, solitary, axillary flower. The flowers are borne by a (5)6-12(15) mm pedicel, densely glandular with very short hairs visible under magnification. The calyx forms a 5-7(8) mm bilabiate bell with a 3.5-5 (6.5) mm tube, longer than the 1-1.5 mm triangular lobes, which are obtuse or slight obtuse. The corolla is 8.5-11.5(13) mm, white or pink with purple throat, fused into a (5)7-8 mm tube at the base, hairless on the outside, hairy at the stamen insertion. The tube is longer than the oval lobes, obtuse, 3-4.7(6) × 2.5-4.5(5) mm, 3 are slightly wider than the other 2, hairless or with a few scattered lashes.

**Fruits:** more or less spherical berries and measure 5.5-13 × 4.5-12 mm, they are orange-red, turning reddish-pink when dry. Seeds are 2.2-3 × 1.7-2.5 mm, kidney-shaped to almost spherical, brown.

#### Biology and Ecology

*L. ferocissimum* reproduces by sexual reproduction, with seeds being dispersed by birds when feeding on the fruits. In addition, the seeds can also be spread by other small mammals. Seed can be spread by water movement and by human activities.

#### Habitats

Coastal dune systems, inland sandy soil habitats, ruderal habitats (roadsides, railway lines, embankments, water courses).

### Pathways for movement

The species has been utilised in Australia as a hedge plant. In the EPPO region, the species may be moved as a plant for planting and potentially as a contaminant of used machinery and equipment. Natural spread via movement of birds is also a potential pathway for entry.

### Impacts

*L. ferocissimum* can invade natural habitats and have a negative impact on native plant species and higher trophic levels. The species can form dense stands outcompeting native plants. The thick sharp spines can be injurious to humans and act to restrict access to land for recreation and other uses.

### Control

Physical control methods can be adopted against *L. ferocissimum* including removal. However, protective clothing should be used to avoid harm from the thorns. Chemical control options include foliar spraying, basal bark treatment and cut stump treatment. Repeated applications may be needed to kill the rootstock.

### Sources

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