

INVASIVE ALIEN PLANT SPECIES of Gaborone

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by

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Introduction

Invasive alien plants are a real problem in Botswana. They impose negative impacts such as the choking of rivers, lowering crop yields, spoiling the natural beauty of landscapes and they use a lot of underground water, thus reducing the available amount of water for other plants and humans. A lot of funds are needed to control and eradicate them, so early detection and control of these species are imperative. These plants are usually introduced intentionally as ornamentals and crops, or unintentionally through dispersal of seeds by wind, water, humans and animals.

This book is an outcome of observation or monitoring of invasive alien plants in Gaborone, the capital city of Botswana. Several invasive alien plants have been observed in Gaborone. They have been recorded from riverbeds, beside roads, in disturbed areas, in open spaces, around residential areas, around business areas and other places in the city.

The purpose of this booklet is to help members of the community, law enforcers and researchers interested in management of invasive alien plants with these species' identification. This book documents 16 invasive alien plants observed in Gaborone from 2013 to 2017. Continuous monitoring is necessary to gather more data on these and other invasive alien species.

Invasive alien plant species



AGAVACEAE

Agave angustifolia Haw.

Common name: *Kleingaringboom*

Description: Succulent shrub with thick, sword-shaped leaves in a rosette up to 1.2 m tall. Leaves ascending to horizontal in a mid-rosette, linear to narrowly lanceolate, light green to glaucous grey, margins armed with small teeth, apical spine conical to subulate. Inflorescence paniculate, 3–5 m tall, branched. Flowers erect, 50–65 mm long, green to yellow. Fruit a capsule, ovoid, 30–50 mm long.

Invades: Abandoned homes, watercourses, along yard fences

Origin: Central America (Mexico)

ASTERACEAE

Flaveria bidentis (L.) Kuntze

Common name: Smelter's bush

Description: Erect herb up to 1.8 m high. Leaves opposite, lanceolate, margins dentate. Flowers in heads bearing few flowers, clustered in terminal and axillary groups on short stalks, yellow, subtended by leafy bracts.

Invades: Disturbed places, roadsides, streams, wastelands

Origin: South America







ASTERACEAE

Verbesina encelioides (Cav.) Benth. & Hook. ex A.Gray

Common name: Wild sunflower

Description: Erect herb, branching from near the base. Leaves ovate, serrate, with prominent midrib, lower surface pale green to whitish. Flowers in heads, ray florets yellow, disc florets yellowish orange. Fruits triangular, winged along the margins.

Invades: Disturbed areas, roadsides

Origin: United States and Mexico

BIGNONIACEAE

Tecoma stans (L.) Juss. ex Kunth

Common name: Yellow bells

Description: Evergreen shrub or tree up to 6 m high. Leaves bright green, paler below, pinnate; leaflets 5–13, margins sharply toothed. Flowers bright yellow, trumpet shaped, in terminal sprays. Fruits shiny brown capsules, splitting open to release many papery-winged seeds.

Invades: Roadsides, urban open spaces, watercourses

Origin: Mexico and United States







CACTACEAE

Cylindropuntia imbricata (Haw.) F.M.Knuth

Common name: Imbricate prickly pear

Description: Succulent shrub, 1–3 m tall. Branches dull grey green, whorled or sub-whorled to sub-clustered, old branches hanging downwards, spines up to 30 mm long. Leaves subulate, 10–20 mm long, caducous. Flowers purple red, flowering from November to January. Fruit yellow, fleshy.

Invades: River banks

Origin: North and Central America

CONVOLVULACEAE

Ipomoea carnea Jacq. subsp. *fistulosa* (Mart. ex Choisy) D.F.Austin

Common name: Morning glory bush, potato bush

Description: Erect to scrambling shrub up to 3 m high. Leaves dull green, lanceolate to ovate. Flowers deep pink to purple, in clusters at branch tips. Fruits brown, dehiscent capsules.

Invades: Roadsides, riverbanks

Origin: Tropical America







EUPHORBIACEAE

Ricinus communis L.

Common name: Castor oil plant

Description: Erect shrub growing up to 4 m high. Leaves shiny, dark green or reddish, paler below, palmately 5–9-lobed, margins serrated. Flowers reddish (upper) to cream (below), on stalks up to 150 mm long. Fruits green, brown or reddish, three lobed capsules, covered with soft spines.

Invades: Roadsides, riverbeds, riverbanks, wastelands

Origin: Tropical Africa

FABACEAE

Parkinsonia aculeata L.

Common name: Jerusalem thorn

Description: Evergreen tree, 6–9 m high. Leaves light green 1–2(–3) pairs of very long, slender, pendulous, flattened pinnae; leaflets many, widely spaced, oval or oblong. Flowers yellow, in slender pendulous sprays. Fruits brown, slightly flattened pods, greatly constricted between the seeds.

Invades: Watercourses, floodplains, roadsides

Origin: United States to Argentina







FABACEAE

Senna occidentalis (L.) Link

Common name: Stinking weed, wild coffee

Description: Erect herb or slightly woody shrub 0.5–2.0 m high, at times emits an unpleasant smell. Leaves with 4–5(–6) pairs of ovate to lanceolate-elliptic leaflets, tips pointed. Flowers pale yellow, 2–4 in axillary racemes. Fruits flattened pods with one row of seeds.

Invades: Riverbanks, roadsides, wastelands, old lands, grasslands

Origin: Tropical America

MALVACEAE

Malva parviflora L.

Common name: Small mallow

Description: Bushy herb up to 1 m high. Leaves on long stalks, margins toothed. Flowers in clusters, petals white, barely longer than calyx.

Invades: Disturbed areas, along streams

Origin: Northern Africa, Europe and Asia







MELIACEAE

Melia azedarach L.

Common name: Syringa, Persian lilac

Description: Deciduous tree of up to 23 m high. Leaves bipinnately compound, leaflets odd-pinnate with deeply toothed margins, unpleasantly scented when crushed. Flowers borne in large showy axillary panicles, petals pale lilac, stamen tube purple. Fruits globose drupes, green turning yellow.

Invades: Roadside, urban open spaces, wastelands, riverbanks.

Origin: Asia to Australia

MYRTACEAE

Eucalyptus camaldulensis Dehnh.

Common name: Red river gum

Description: Evergreen tree growing up to 40 m high. Mature leaves grey-green, alternate, narrow, pendulous. Inflorescences umbels with up to 10 cream-white flowers in leaf axils. Fruits brown to reddish-brown capsules.

Invades: Riverbanks

Origin: Australia







PAPAVERACEAE

Argemone ochroleuca Sweet subsp. *ochroleuca*

Common name: Mexican poppy

Description: Erect, annual herb growing up to 500 mm high. Leaves stalkless, alternate, deeply pinnately lobed, bluish green. Flowers terminal, pale cream to almost white. Fruit a spiny capsule, splitting open at the top.

Habitat: Riverbanks, roadsides, railway tracks, disturbed areas

Origin: Mexico

RUBIACEAE

Richardia brasiliensis Gomes

Common name: Tropical richardia

Description: A short-leaved herb, covered with hairs throughout. Leaves oval shaped. Inflorescence with stalkless white flowers clustered at ends of branches, surrounded by bracts.

Invades: Disturbed places, ploughed fields, water furrows

Origin: South America





SOLANACEAE

Nicotiana glauca Graham

Common name: Wild tobacco

Description: Evergreen shrub or small tree up to 6 m high. Leaves ovate, blue green. Flowers yellow, tubular, in terminal clusters. Fruits brown, four halved capsules.

Invades: Roadsides, wastelands, riverbanks, riverbeds

Origin: South America

VERBENACEAE

Lantana camara L.

Common name: Lantana

Description: A multi-stemmed shrub, up to 2 m high, stems often 4-angled. Leaves dark green, pale underneath with rough hairs. Flowers with several colours (pink, red, yellow, orange, white) in one flat-topped inflorescence. Fruits blackish, shiny, fleshy drupes.

Habitat: Degraded land, roadsides.

Origin: South and Central America





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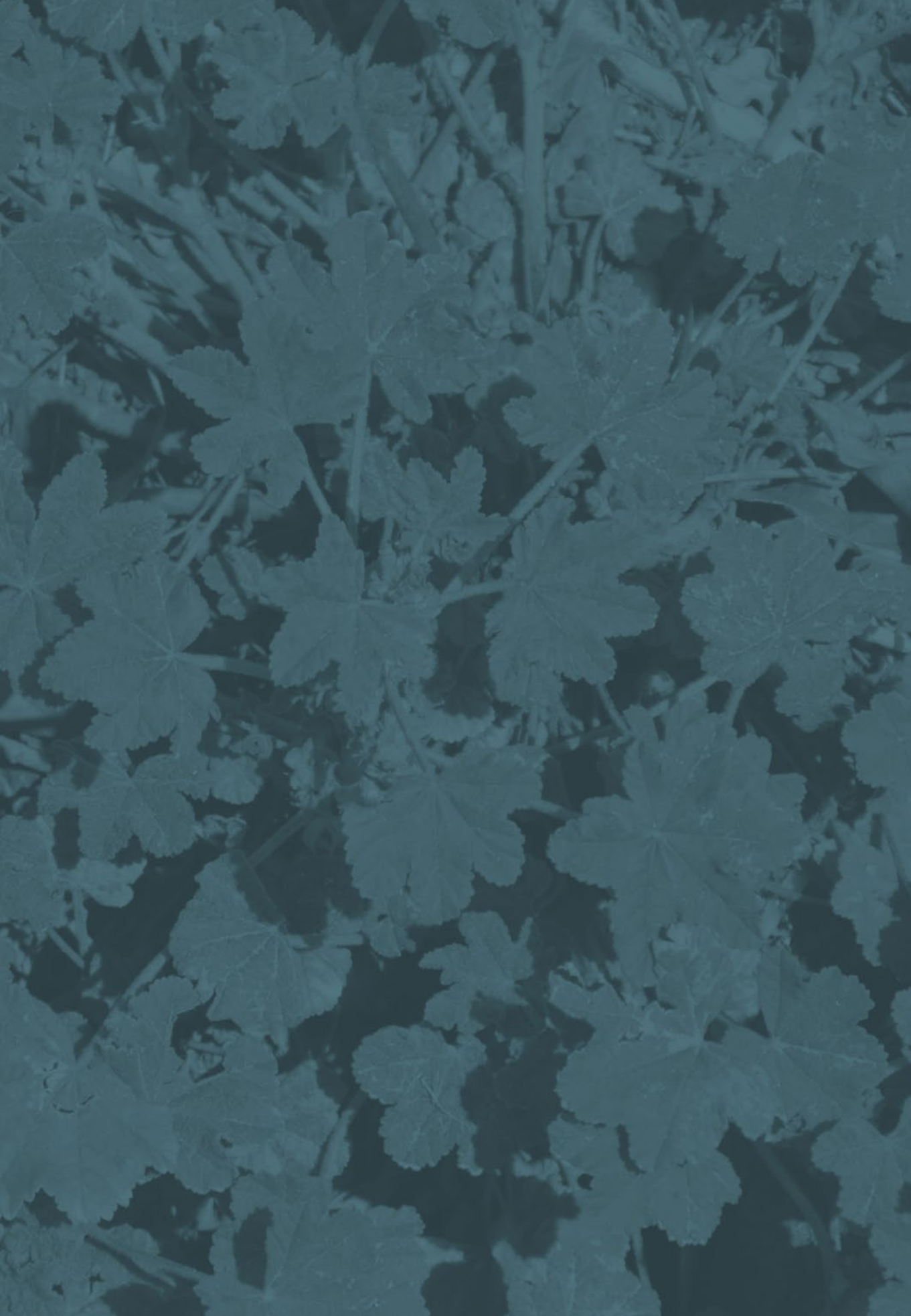
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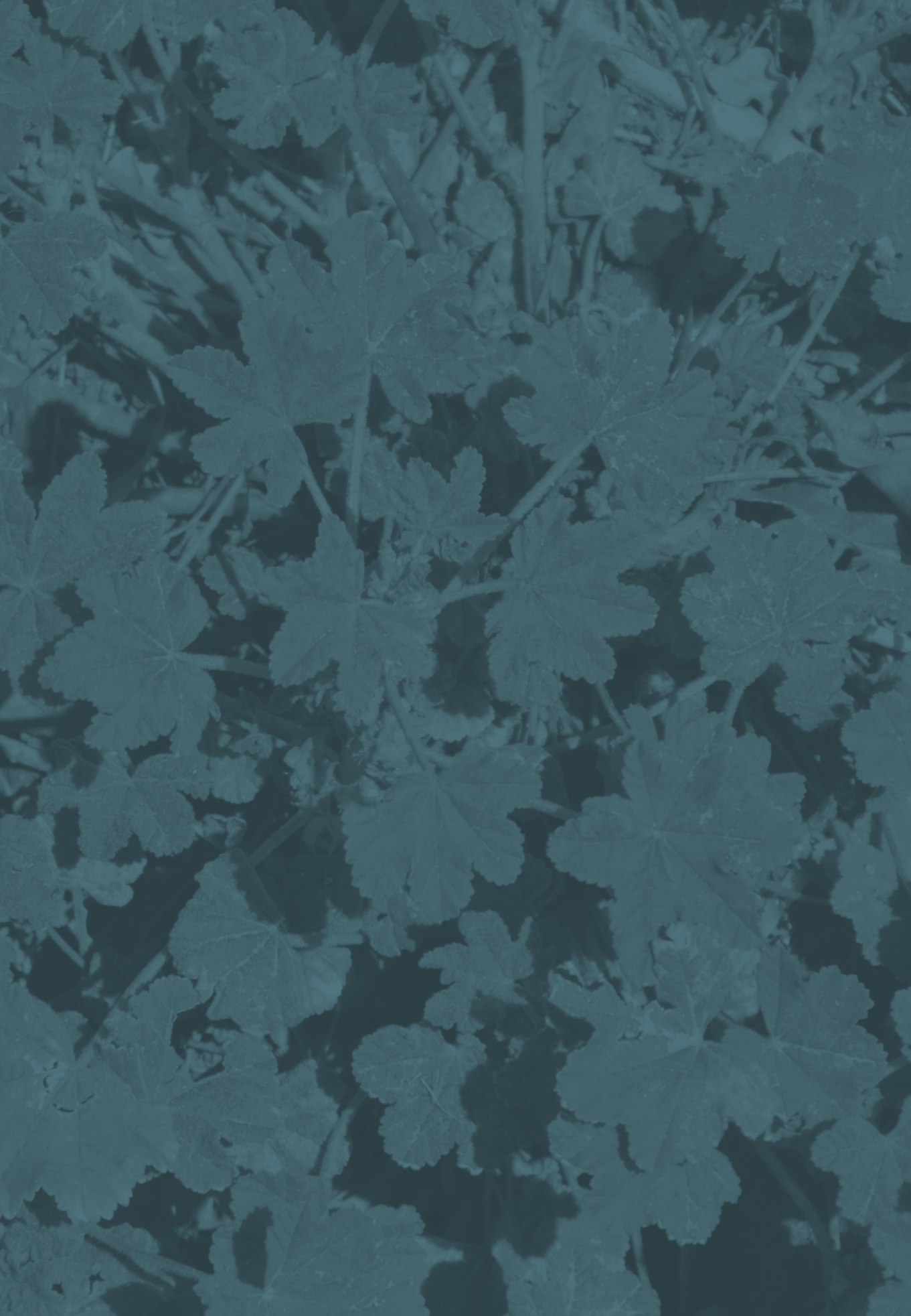




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