

FLOWERS yellow, small to medium, up to 32 mm \varnothing , mostly 20-25 mm \varnothing . **Seed capsules** usually 5-merous (92%), otherwise (8%) mostly 6-merous. Profile boat-shaped, top \pm flat, occasionally slightly peaked; face broadly elliptic, up to 8,0 x 7,0 mm, mostly about 7,0 x 6,0 mm.

4.2 *Lithops dinteri* var. *multipunctata* De Boer (1966) (Y). Plate 1/5-6.

COLLECTED by Victor L. Pringle and A.A. Roux in May 1963. Latin *multipunctata* "having many dots".

DISTRIBUTION: SWA/Namibia, in a small area near the Orange River, SE of Warmbad (not SW, as stated in the original publication). Reports of the occurrence of this variety to the south of the Orange River, in the Cape Province, have not yet been confirmed.

DESCRIPTION: Rather variable, often a little larger than the type. **Profile** truncate, flat to slightly convex; fissure 5-12 mm deep, lobes conjunct. **Face** flush to slightly elevated; usually \pm reniform; lobes \pm unequal; mostly opaque; smooth to slightly rugose. **Margins** irregularly indented. **Windows** infrequently apparent, usually reduced to a number of very slightly impressed **channels**, mostly rather indistinct, forming an irregular broken network or sometimes reduced to small translucent spots. **Islands** absent, or present only in the form of indistinct and irregular opaque areas within obscure windows, these opaque areas often made up of dotted flecks and/or smudges. **Markings** in the channels, red lines, dashes, dots, hooks, which sometimes form a broken network; sometimes the markings almost completely fill the very narrow channels.

Colours: Face buff to pale brown, beige or pinkish grey, the margins often indistinctly banded in a slightly deeper hue. Channels translucent dull grey-green, often with a reddish tint. Markings in the channels, numerous bold blood-red dots, dashes, hooks and/or lines, sometimes forming an irregular network. Shoulders greenish, yellowish or pinkish grey, duller than the margins.

Size: Small to medium, up to 33 x 22 mm, mostly about 20 x 15 mm. Number of heads up to 13 or more, mostly 2-5.

FLOWERS yellow, small to medium, up to 35 mm \varnothing , mostly 20-30 mm \varnothing . **Seed capsules** 5-merous (almost 100%). Profile boat-shaped, top \pm flat; face round to broadly elliptic, up to 8,0 x 7,0 mm, mostly about 7,0 x 6,0 mm.

5 *Lithops eberlanzii* (Dint. & Schwant). N.E. Br. (1925) (W). Plate 2/1-5.

COLLECTED by Friedrich G. Eberlanz in 1923 (?), and named for him. In 1922 plants of this species were found to the south of Aus (Kuckaus-Pockenbank plains) by Professor Kurt Dinter, but he assumed them

to be *L. bella* N.E. Br. Subsequently the plants from this area were published as *L. erniana* Tisch. ex Jacobs.

DISTRIBUTION: SWA/Namibia, in a large quadrangular area based approximately on Lüderitz, Aus, Witputs and a point about 40 km SW of Witputs. Type locality Kavisberg, in the Diamond Area, E of Lüderitz. Our concept of *L. eberlanzii* includes *L. erniana* Tisch. ex Jacobs., as discussed in Cole 1984b.

DESCRIPTION: Extremely variable, some specimens being mostly opaque and almost uniform in colour, others with broad unmarked translucent channels, and yet others with a strong network of fine markings; there is also a great deal of variation in the colours. **Profile** truncate to cordate, sometimes flat but usually distinctly convex; fissure 7-12 mm deep, lobes conjunct, sometimes slightly divergent at the top. **Face** flush to slightly elevated; mostly \pm reniform; lobes usually unequal; mainly opaque; smooth to rugose. **Margins** usually indistinct, with irregular indentations; occasionally fairly well-defined or more regular, with bold peninsular projections into the window area. **Windows** usually occluded by islands and peninsulas, and thus reduced to a number of **channels**, occasionally fairly regular, bold and well-defined, but usually indistinct and irregularly branched, the ends of the branches tapering off into the margins; often the channels are reduced to narrow slightly impressed furrows which may be taken up almost entirely by the markings. **Islands** sometimes bold and well-defined, often indistinct, and occasionally barely discernible against the background of opaque channels.

Markings sometimes absent; usually a network of slender branched lines set in the channels or furrows, very often reduced to a number of dots, hooks and/or short lines, which may be quite obscure and not visible without a lens. **Pellucid dots** very rarely present, very sparse and usually near the inner margins, not visible without a lens.

Colours: Face, margins, islands, various shades of opaque pale or dark grey-white which may be tinted with blue, mauve, pink, brown, buff, beige, yellow or green; the margins sometimes obscurely banded in a slightly deeper shade. Windows/channels, various shades of obscurely translucent pale grey tinted with blue, green, pink, brown, mauve, buff, beige or dark grey-green. Markings red, brown, orange-brown, pink or purplish, sometimes bright and bold, often dull and rather indistinct. Pellucid dots dull grey-green. Shoulders usually as for the face, but may be somewhat lighter or darker.

Size: Small to medium, up to 38 x 25 mm, mostly about 25 x 20 mm. Number of heads up to 12 or more, mostly 2-4.

FLOWERS white, medium to large, up to 37 mm \varnothing , mostly 25-30 mm \varnothing . **Seed capsules** nearly all 5-merous (98%). Profile boat-shaped, top \pm flat; face

round to broadly elliptic, up to 9,0 x 7,0 mm, mostly about 7,0 x 6,0 mm.

5.1 *Lithops eberlanzii* cv. Avocado Cream (W). Plate 2/6.

COLLECTED by D.T. & N.A. Cole in August 1984.

DISTRIBUTION: SWA/Namibia, at present known from only one colony of *L. eberlanzii* in the Halenberg hills, where it occurs extremely rarely among the normally-coloured plants.

DESCRIPTION: Except in colour, essentially as for the type. **Colour** of the face, opaque pale creamy green tinted with beige; channels obscurely translucent dull dark grey-green; markings barely discernible, dull reddish; shoulders light creamy green. **Size:** Medium, up to 25 x 17 mm. Number of heads up to 7.

6 *Lithops francisci* (Dint. & Schwant.) N.E. Br. (1925) (Y). Plate 4/1-2.

COLLECTED by Professor Kurt Dinter in July 1922, and named for his friend Frantz de Laet of Contich (near Antwerp), Belgium.

DISTRIBUTION: SWA/Namibia, in the Kavisberg and Halenberg hills in Diamond Area No. 1, to the east of Lüderitz. Type locality Halenberg.

DESCRIPTION: A relatively uniform and therefore fairly easily identifiable species. **Profile** cordate to truncate, usually distinctly convex, sometimes \pm flat; fissure 6-12 mm deep, lobes conjunct, sometimes slightly divergent. **Face** slightly elevated; \pm reniform; lobes usually unequal; mainly opaque; smooth to very slightly rugose. **Margins** usually indistinct and very irregular with ragged peninsular projections into the face. **Windows** sometimes entirely occluded, but usually reduced to a few obscure **channels**, slightly impressed, narrow and indistinct, and very irregular and ragged in outline. **Islands** indistinct, and very irregular and ragged in shape. **Markings** absent. **Pellucid dots** very numerous, \pm round, small, up to 0,5 mm \varnothing , very slightly indented, scattered irregularly over the whole face, but often concentrated along the edges of the channels.

Colours: Margins, islands, peninsulas, opaque pale greenish grey or grey-white, sometimes pale grey tinged with yellow or pink. Channels slightly deeper translucent grey-green. Pellucid dots dull grey-green. Shoulders slightly paler than the face.

Size: Small to medium, up to 30 x 20 mm, mostly about 24 x 17 mm. Number of heads up to 20 or more, mostly 3-6.

FLOWERS yellow, small, up to 25 mm \varnothing , mostly 15-20 mm \varnothing . **Seed capsules** almost all 5-merous (98%). Profile boat-shaped, top \pm flat; face broadly elliptic to elliptic, up to 8,0 x 6,5 mm, mostly about 7,0 x 6,0 mm.

7 *Lithops fulleri* N.E. Br. (1927) (W).

Three varieties have been named within this species, var. *fulleri*, var. *brunnea* De Boer, and var. *rouxii* (De Boer) Cole. Only the last of these occurs in SWA/Namibia. The type variety of *L. fulleri* extends over a very wide area in the Cape Province, including Kenhardt, Gamoep, Beenbreek (S of Goodhouse), and Lutzputs and Grondneus (W and NW of Upington).

7.1 *Lithops fulleri* var. *rouxii* (De Boer) Cole (1964) (W). Plate 3/1-2.

COLLECTED by A.A. Roux in May 1963, and named for him.

DISTRIBUTION: SWA/Namibia, to the W and SW of Warmbad; type locality "30 miles SW of Warmbad". This area is separated by a distance of some 70 km from the range of *L. fulleri* var. *fulleri* to which var. *rouxii* is closely related.

DESCRIPTION: Relatively uniform. **Profile** truncate, flat to slightly convex; fissure 6-12 mm deep, lobes conjunct. **Face** flush; reniform; lobes \pm unequal; opaque; slightly rugose. **Margins** well-defined but somewhat irregular with indentations, and within them a distinctive series of dark markings which resemble stitches. **Windows** slightly impressed below the level of the margins and islands; often completely open but opaque, otherwise partly or even largely occluded by a number of islands, and thus reduced to a system of **channels**, narrow to broad. **Islands** very slightly raised but usually rather indistinct against the opaque background of the channels; mostly relatively large and fairly regular in shape. **Markings** mostly confined to the outer margins, where they occur as a series of short dark lines similar to the symbols "i, v, w, x, y", thus resembling stitches; but sometimes in the inner margins and within the windows a few isolated short dashes and dots, or even an irregular broken network of lines.

Colours: Margins often a very distinct band of beige, buff or brown, sometimes tinged with yellow or pink. Windows opaque yellowish, beige, pale buff to brownish, or bluish, pinkish or mauvish grey. Islands often indistinct, pale greyish white or pinkish, sometimes flushed with a blotch, smudge or smear of colour similar to that in the margins. Markings mostly in the margins, sometimes a network in the window, dark brown or red. Shoulders mostly grey-white, sometimes pinkish, bluish or greenish grey-white.

Size: Medium to large, up to 40 x 25 mm, mostly about 30 x 20 mm. Number of heads up to 6 or more, mostly 2-3.

FLOWERS white, small to medium, up to 32 mm \varnothing , mostly 20-25 mm \varnothing . **Seed capsules** usually 5-merous (89%), otherwise (11%) mostly 6-merous. Profile boat-shaped, top flat; face elliptic, up to 10,0 x 7,0 mm, mostly about 7,5 x 5,5 mm.