

***Spatalla* Salisb. 1807**

Spoons

From the Greek “wantoness” apparently “with more wit than decency” (Louden 1829) an allusion to the large pollen presenter on so small a flower. Type: *S. racemosa*.

The genus *Spatallopsis* Phillips 1910 was created for those species with a regular calyx and conical stigma (*versus* hollow, bend pollen presenter and one of the perianth segments large to accommodate this). This includes all the 3-flowered species and some of the 1 flowered species (*S. salsoloides* and *S. setaceae*)

There are two natural sections in the genus with 1 or 3 flowers per involucre, respectively.

Spatalla argentea Rourke 1969 Silver-leaf Spoon

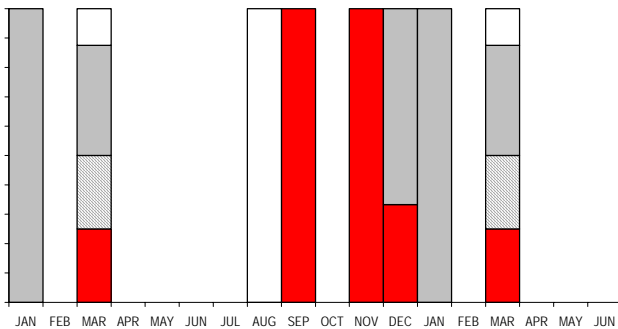
Other Common Names: None known.
Other Scientific Names: *None*.

18 Records

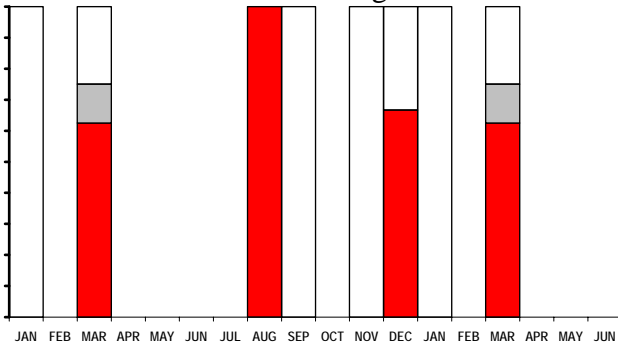
Population (18 records): 11% Common, 56% Frequent, 33% Rare.

Dispersion (17 records): 71% clumped, 29% variable.

Flowering (18 records with: Jan 2, Feb 0, Mar 8, Apr 0, May 0, Jun 0, Jul 0, Aug 1, Sep 3, Oct 0, Nov 1, Dec 3): Buds not recorded; Flowering from Mar and Sep to Dec; Peak Flowering not recorded; Over from Mar; Fruit from Dec to Mar; Nothing from Mar and Aug. Peak levels at 100% in Sep and Nov. Historically recorded as flowering from Oct to Jan.



Growth (18 records with: Jan 2, Feb 0, Mar 8, Apr 0, May 0, Jun 0, Jul 0, Aug 1, Sep 3, Oct 0, Nov 1, Dec 3): Much from Mar and Aug and Dec; Rare not significant; None from Nov to Jan, Mar and Sep. Peak levels unreliable: at 100% in Aug.



Seedlings (6 records): All without any seedlings present.

Fire Survival : No data.

Age to first flowering: First flowers recorded at 100% at 6 years.



Height (18 records): 100% 0.2-1 m tall.

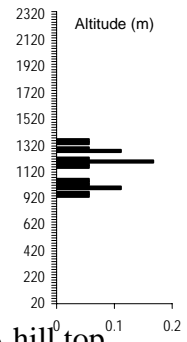
Pollinators : No data.

Detailed Pollinators: No additional data.

Habitat:

Distance to Ocean (18 records): 100% inland - further than 2 km from coast.

Altitude (18 records): 820 - 1260 m; 900_{lq} - 1080_{med} - 1100_{uq}m.

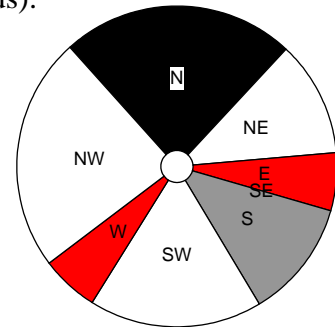


Landform (18 records): 61% deep soil, 39% shallow soil.

Slope (18 records): 61% gentle incline, 33% steep incline, 6% hill top.

Aspect (17 records):

44% North,
26% West,
18% South,
12% East.



Soil Type (18 records): 56% sandy, 33% loamy, 6% gravelly, 6% rocky.

Soil Colour (17 records): 76% grey, 12% brown, 12% yellow.

Geology (18 records): 100% sandstone.

Vegetation (18 records): 100% shrubland.

Conservation Status and Threat:

Red Data List Status: Endangered

B1a(ii)c(iv)+2a(ii)c(iv).

Occurrence (Fynbos): 19 km² with 16% conserved and 1% lost; Occupancy: 14km² with 27% conserved and 1% lost. Fragmentation index: 70%.

Nature Reserves (18 records): 6% in nature reserves - inadequately conserved.

Habitat destruction (18 records):

100% extensive natural habitat.

Alien Invasive Species (18 records):

44% *Hakea*, 33% none, 22% *Pinus*.

Alien Density (18 records): 33% alien-free, 67% sparse.

Cultivation & Utilization:

Picking (14 records): 100% no sign of picking.

Cultivation Status: No noted cultivation.

Atlassers Notes: None.

Confusing Species: None noted.

Records of identification queries = 3

Variation and Taxonomy: No variation known.

Distribution: Add.

INCLUDEPICTURE

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MERGEFORMAT \d

Spatalla caudata (Thunb.) R.Br. 1781, 1810

Woolly-hair Spoon

Wolbos

Other Common Names: Heath-leaf *Spatalla*, Tail-flower *Spatalla*.

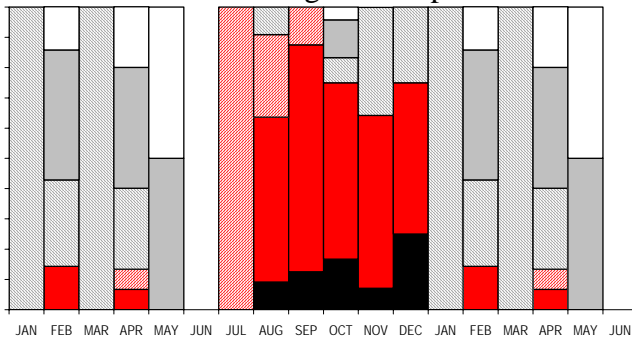
Other Scientific Names: *australis* (Poir) 1816, *brevifolia* R.Br. 1810, *caudaefflora* Salisb. ex Knight 1809, *ericifolia* Salisb. ex Knight 1809, *thunbergii* R.Br. 1810.

95 Records

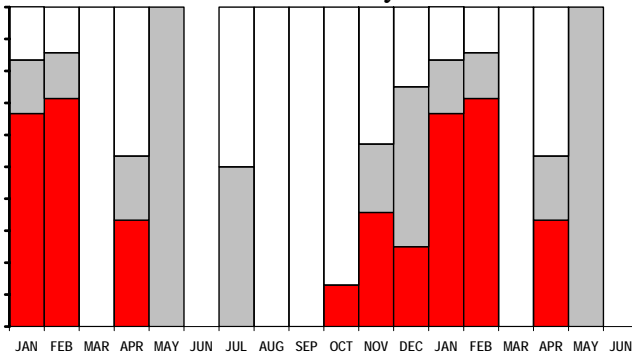
Population (94 records): 43% Common, 43% Frequent, 15% Rare.

Dispersion (84 records): 51% clumped, 45% variable, 2% evenly distributed, 1% widespread.

Flowering (95 records with: Jan 6, Feb 7, Mar 2, Apr 15, May 2, Jun 0, Jul 2, Aug 11, Sep 8, Oct 24, Nov 14, Dec 4): Buds from Jul to Aug; Flowering from Aug to Dec; Peak Flowering from Dec; Over from Nov to Apr; Fruit from Feb and Apr to May; Nothing from Apr to May. Peak levels at 100% in Dec, Jan, Mar and Jul to Sep. Historically recorded as flowering from Sep to Oct.



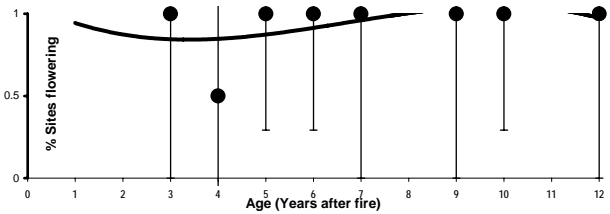
Growth (93 records with: Jan 6, Feb 7, Mar 2, Apr 15, May 2, Jun 0, Jul 2, Aug 11, Sep 7, Oct 23, Nov 14, Dec 4): Much from Nov to Feb and Apr; Rare from Apr to Jul and Nov to Dec; None from Mar to Apr and to Dec. Peak levels at 100% in May.



Seedlings (40 records): Absent in 95%; more seedlings than prefire adults in 1 case. Seedlings found in Apr.

Fire Survival (4 records): 75% survived by seedlings only, 25% eliminated from the area by fires.

Age to first flowering: First flowers recorded at 3 years, 50% estimated at 3-4 years, and 100% estimated at 5 years.



Height (94 records): 3% 0-0.2 m tall, 94% 0.2-1 m tall, 3% 1-2 m tall.

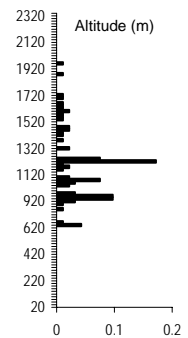
Pollinators (4 records): 75% bees or wasps, 25% flies.

Detailed Pollinators (5 records): Solitary Bee (2), Honey Bee (2), Wasp (unspecified).

Habitat:

Distance to Ocean (93 records): 100% inland - further than 2 km from coast.

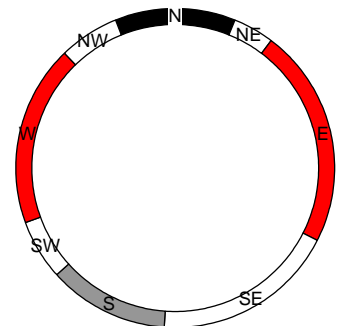
Altitude (93 records): 620 - 1860 m; 840 *lq* - 980 *med* - 1120 *uq*m.



Landform (90 records): 88% deep soil, 10% shallow soil, 1% swamp, 1% rocky outcrops.

Slope (87 records): 39% platform, 34% gentle incline, 23% valley bottom, 3% steep incline.

Aspect (49 records): 34% East, 26% West, 23% South, 17% North.



Soil Type (89 records): 76% sandy, 17% loamy, 3% gravelly, 3% rocky.

Soil Colour (90 records): 56% grey, 20% brown, 14% white, 10% yellow.

Geology (83 records): 89% sandstone, 6% shale, 4% Tertiary sands, 1% silcrete or ferricrete.

Vegetation (89 records): 100% shrubland.

Conservation Status and Threat:

Red Data List Status: Endangered A4c, the Groot Winterhoek form as Endangered B1a(ii)c(iv)+2a(ii)c(iv).

Occurrence (Fynbos): 3 466 km² with 16% conserved and 8% lost; **Occupancy:** 133 km² with 25% conserved and 8% lost. **Fragmentation index:** 3%.

Nature Reserves (93 records): 42% in nature reserves.

Habitat destruction (90 records): 87% extensive natural habitat, 10% islands, 1% road verges, 1% naturally linear habitats, 1% naturally fragmented habitats.

Alien Invasive Species (88 records): 75% none, 22% *Pinus*, 2% Fabaceae (chiefly alien *Acacia*), 1% Myrtaceae.

Alien Density (88 records): 75% alien-free, 20% sparse, 3% abundant, 1% dense.

Cultivation & Utilization:

Picking (69 records): 100% no sign of picking.

Cultivation Status: No noted cultivation.

Witch's Broom Infestation: 1 records (1%).

Atlassers Notes:

Identified as *S. tulbaghensis* - same identification found for same population by Peter Linder at the Bolus Herbarium: this is a funny short-leaved form of *S. caudata*! (DEB94080705); Herbarium specimen with note: Is this *S. tulbaghensis*? No this is a curious form of *S. caudata* - based on this sample John Rourke considered this a possible new species, worth investigating further (VDW97073002); Atlassed as *S. tulbaghensis* - but with notes: long flowerhead and habit like *S. caudata*, but shorter leaves than described. John Rourke subsequently visited the site and decided that it was just a form of *S. caudata*, different as so isolated from other populations! (AGRY0081208+9)

Some 30% mortality before first flowering due to drought (NAH94040203); Most plants in middle of site appear dead, those on edges and especially the top are thriving (SGAY1022414).

Confusing Species: *Spatalla tulbaghensis* has been confused with the Groot Winterhoek population both in the herbarium and by atlassers. It has also been misidentified as *Sorocephalus scabridus*, probably in error as both co-occur at site.

Records of identification queries = 11

Records of corrected identification queries = 6.

Variation and Taxonomy: No variation noted in the literature other than occasional white flowers. The Groot Winterhoek population is distinct in having shorter leaves and more hairy flowerheads and being somewhat intermediate with *Spatalla tulbaghensis*.

Distribution: Add.

INCLUDEPICTURE

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Spatalla confusa (Phill.) Rourke 1910, 1969
Long-tube Spoon
Slangoppie

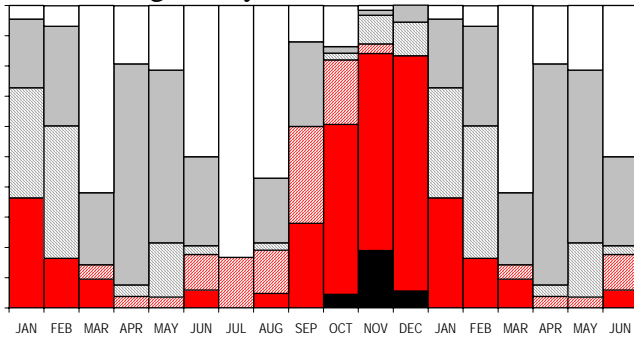
Other Common Names: *Wolbos*.
Other Scientific Names: *None*.

467 Records

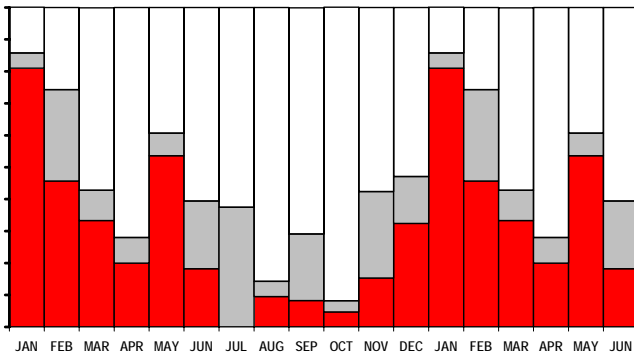
Population (465 records): 18% Common, 59% Frequent, 23% Rare.

Dispersion (418 records): 56% variable, 39% clumped, 3% evenly distributed, 2% widespread.

Flowering (465 records with: Jan 22, Feb 73, Mar 21, Apr 26, May 28, Jun 34, Jul 6, Aug 42, Sep 25, Oct 89, Nov 63, Dec 36): Buds from Sep to Oct; Flowering from Sep to Jan; Peak Flowering from Nov; Over from Jan to Feb; Fruit from Jan to Jun 29 and Aug to Sep; Nothing from Mar to Aug. Peak levels at 97% in Nov. Historically recorded as flowering briefly from Nov to Dec.



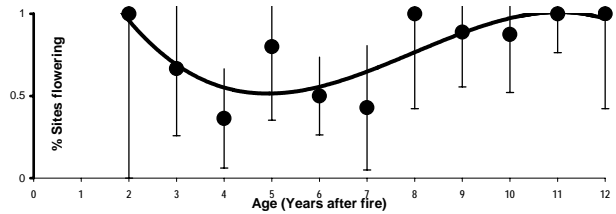
Growth (451 records with: Jan 21, Feb 70, Mar 21, Apr 25, May 28, Jun 33, Jul 8, Aug 42, Sep 24, Oct 86, Nov 59, Dec 34): Much from Dec to May; Rare from Feb, Jun to Jul, Sep and Nov; None from Feb to Dec. Peak levels at 86% in Jan.



Seedlings (128 records): Absent in 97%: fewer seedlings than prefire adults in 1 case, and more in 1 case. Seedlings found in Mar and May.

Fire Survival (15 records): 67% escaped fires in fire-safe areas, 13% survived by seedlings only, 13% resprouted from underground boles, 7% eliminated from the area by fires.

Age to first flowering: First flowers recorded at 2 years, 50% estimated at 4-7 years, and 100% estimated at 11 years.



Height (465 records): 45% 0-0.2 m tall, 53% 0.2-1 m tall, 2% 1-2 m tall.

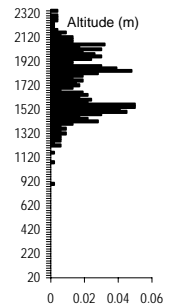
Pollinators (5 records): 60% butterflies or moths, 20% bees or wasps, 20% beetles.

Detailed Pollinators (3 records): Heady Maiden Moth.

Habitat:

Distance to Ocean (463 records): 100% inland - further than 2 km from coast.

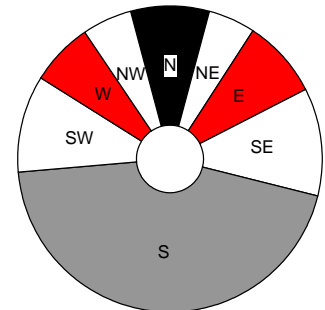
Altitude (463 records): 780 - 2260 m; 1400 *lq* - 1560 *med* - 1780 *uq*m.



Landform (460 records): 61% shallow soil, 33% deep soil, 7% rocky outcrops.

Slope (463 records): 49% steep incline, 30% gentle incline, 13% hill top, 5% platform, 3% cliff, 0.4% valley bottom.

Aspect (386 records): 56% South, 17% East, 14% West, 13% North.



Soil Type (461 records): 46% sandy, 26% loamy, 18% rocky, 8% gravelly, 0.9% peaty, 0.2% clayey.

Soil Colour (455 records): 51% grey, 32% brown, 10% black, 4% white, 1% yellow, 1% orange.

Geology (436 records): 94% sandstone, 6% shale, 0.2% Tertiary sands.

Vegetation (457 records): 98% shrubland, 2% grassland.

Conservation Status and Threat:

Red Data List Status: Least Concern.

Occurrence (Fynbos): 11 550 km² with 23% conserved and 7% lost; **Occupancy:** 628 km² with 41% conserved and 0% lost. **Fragmentation index:** 2%.

Nature Reserves (463 records): 49% in nature reserves.

Habitat destruction (451 records): 96% extensive natural habitat, 2% naturally linear habitats, 2% islands, 0.2% road verges, 0.2% corridors, 0.2% naturally fragmented habitats.

Alien Invasive Species (437 records):
96% none, 3% *Pinus*, 0.2% *Hakea*,
0.2% Fabaceae (chiefly alien *Acacia*).
Alien Density (437 records): 96% alien-free,
3% sparse, 0.5% abundant.

Cultivation & Utilization:

Picking (321 records): 100% no sign of
picking.

Cultivation Status: No noted cultivation.

Atlassers Notes:

Found odd plants 1.2-1.3 m tall
(DOA93072404); Found one plant to 1.45 m
tall - up to my chin (DOA93110202); Plants
also in Height Class 3 – over 2 m tall
(TOW94092204).

Creeping form *versus* erect form at Trig.
Beacon 1.5 km to the north!
(AGR96060512); Growing like a mat
(WMP93103007, WMP94123003).

Fire resistant - not resprouting but protected in
rocks (APE94051401).

S. confusa replaces *Sorcephalus lanatus* up
slope (APE92061404);

Quite unusual to see it growing on an exposed
East-facing slope (DOA94022703);

Pollinated by ted/black moth (VCH98102202);

Confusing Species: Often confused with *S.*
incurva, especially when not in flower.
Rarely with *S. barbiger*.

Records of identification queries = 22.

Records of corrected identification queries = 6.

Variation and Taxonomy: Plant growth habit
varies from creeping cushion plants in alpine
conditions – these are usually carmine tinted,
to erect, green plants at lower altitudes and
where rocks afford protection from wind and
cold. The name “*confusa*” reflects Phillips
interpretation of the species, which muddled
up *S. confusa* and *S. caudata*.

Distribution: Add.

INCLUDEPICTURE

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Spatalla incurva (Thunb.) R.Br. 1781, 1810

Swanhead Spoon

Other Common Names: Dwarf Spatalla, Tall Spatalla, *Wolbos*.

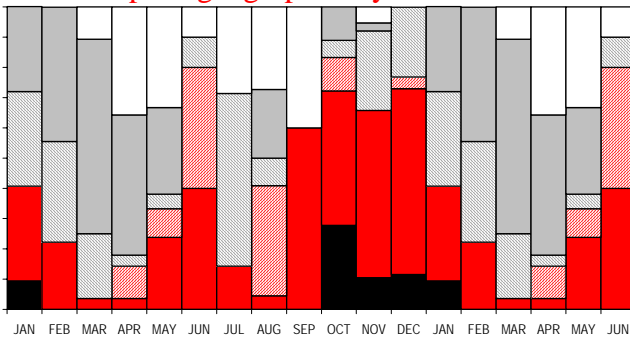
Other Scientific Names: *mucronifolia* Phill. 1910, *nana* Salisb. ex Knight 1809, *procera* Salisb. ex Knight 1809, *wallichii* Phill. 1910.

246 Records

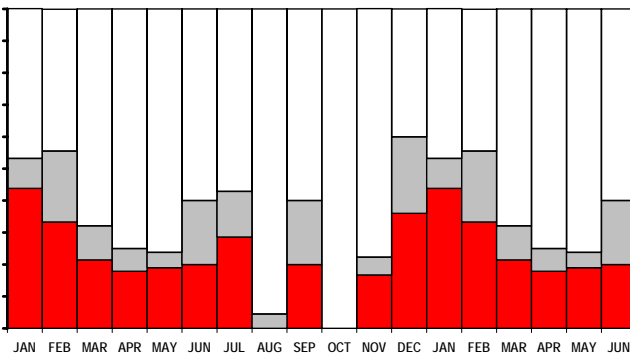
Population (245 records): 14% Common, 57% Frequent, 29% Rare.

Dispersion (213 records): 51% variable, 42% clumped, 4% widespread, 3% evenly distributed.

Flowering (244 records with: Jan 32, Feb 9, Mar 28, Apr 28, May 21, Jun 10, Jul 7, Aug 22, Sep 5, Oct 18, Nov 38, Dec 26): Buds from Jun and Aug; Flowering from Sep to Feb and May to Jun; Peak Flowering from Oct; Over from Nov to Mar and Jul; Fruit from Jan to May and Aug; Nothing from Apr to May and Jul to Sep. Peak levels at 100% in Dec. Historically recorded as flowering from Sep to Mar. <follow up – this this winter peak geographically distinct>



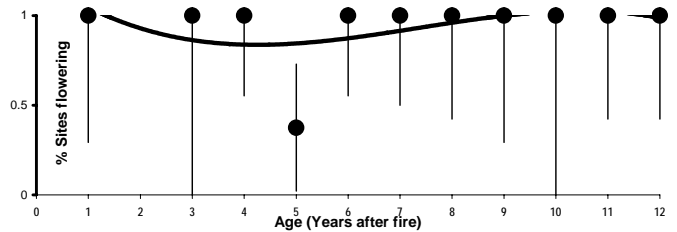
Growth (240 records with: Jan 32, Feb 9, Mar 28, Apr 28, May 21, Jun 10, Jul 7, Aug 22, Sep 5, Oct 17, Nov 36, Dec 25): Much from Dec to Feb and Jul; Rare from Feb, Jun, Sep and Dec; None from all year, lowest in Dec to Feb. Peak levels at 60% in Dec.



Seedlings (104 records): Absent in 88%: fewer seedlings than prefire adults in 1 case, and more in 5 cases. Seedlings found in Jan, Mar, Apr, Jul and Nov (2).

Fire Survival (16 records): 88% survived by seedlings only, 6% eliminated from the area by fires, 6% resprouted from underground boles.

Age to first flowering: First flowers recorded at 1 years, 50% estimated at 2-3 years, and 100% estimated recorded at 4 years, but some populations taking over 15 years to flower.



Height (243 records): 14% 0-0.2 m tall, 80% 0.2-1 m tall, 7% 1-2 m tall.

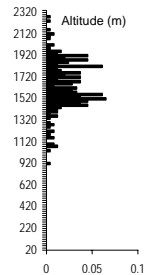
Pollinators (4 records): 75% bees or wasps, 25% flies.

Detailed Pollinators (3 records): Wasp (unspecified) (1), Honey Bee (1), Carpenter Bee (1).

Habitat:

Distance to Ocean (246 records): 100% inland - further than 2 km from coast.

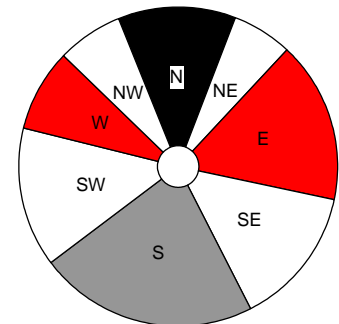
Altitude (246 records): 800 - 2180 m; 1380 *lq* - 1500 *med* - 1660 *uq*m.



Landform (244 records): 57% shallow soil, 31% deep soil, 11% rocky outcrops, 0.8% riverine.

Slope (244 records): 45% steep incline, 41% gentle incline, 7% hill top, 4% platform, 2% cliff, 1% valley bottom.

Aspect (226 records): 36% South, 27% East, 19% West, 18% North.



Soil Type (246 records): 43% sandy, 35% rocky, 15% gravelly, 5% loamy, 1% clayey, 0.4% peaty.

Soil Colour (243 records): 68% grey, 23% brown, 3% white, 3% yellow, 2% orange, 0.4% black.

Geology (242 records): 93% sandstone, 6% shale, 0.8% Tertiary sands.

Vegetation (244 records): 100% shrubland, 0.4% grassland.

Conservation Status and Threat:

Red Data List Status: Least Concern.

Occurrence (Fynbos): 5 565 km² with 19% conserved and 13% lost; Occupancy: 323 km² with 47% conserved and 1% lost. Fragmentation index: 5%.

Nature Reserves (246 records): 61% in nature reserves - well conserved.

Habitat destruction (236 records):

93% extensive natural habitat, 3% islands,
3% naturally linear habitats, 0.4% patches,
0.4% corridors, 0.4% naturally fragmented
habitats.

Alien Invasive Species (224 records):

95% none, 5% *Pinus*.

Alien Density (224 records): 95% alien-free,
5% sparse.

Cultivation & Utilization:

Picking (128 records): 100% no sign of
picking.

Cultivation Status: No noted cultivation.

Atlassers Notes:

Almost half dead! (AGR99032814); Half plants
are dead lower down - too dry?
(AGR99032815);

Confusing Species: Mostly confused with *S.*
caudata and *Sorocephalus lanatus*, but
mainly when not in flower.

Records of identification queries = 21.

Records of corrected identification queries = 4.

Variation and Taxonomy: Short-leaf forms
occur, but were not noted by atlassers.

Distribution: Add.

INCLUDEPICTURE

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Spatalla propinqua R.Br. 1810

Lax Spoon

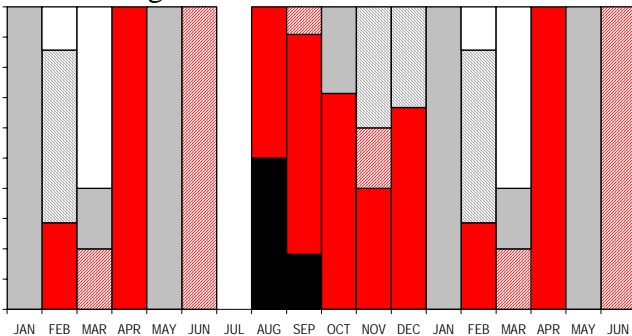
Other Common Names: None known.
Other Scientific Names: *None*.

45 Records

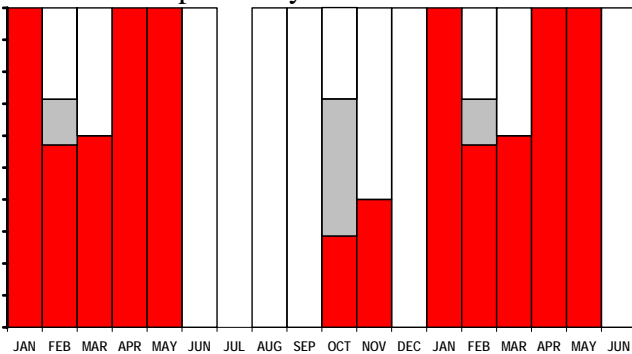
Population (45 records): 29% Common, 51% Frequent, 20% Rare.

Dispersion (39 records): 64% clumped, 31% variable, 5% evenly distributed.

Flowering (44 records with: Jan 1, Feb 7, Mar 5, Apr 1, May 1, Jun 1, Jul 0, Aug 2, Sep 11, Oct 7, Nov 5, Dec 3): Buds from Mar, Jun and Nov; Flowering from Aug to Feb; Peak Flowering from Aug to Sep; Over from Nov to Feb; Fruit from Jan, May and Oct; Nothing from Mar. Peak levels at 100% in Aug to Sep. Historically recorded as flowering from Jun to Mar in two flushes.



Growth (43 records with: Jan 1, Feb 7, Mar 5, Apr 1, May 1, Jun 1, Jul 0, Aug 2, Sep 10, Oct 7, Nov 5, Dec 3): Much from Jan to May and Oct to Nov; Rare from Oct; None from Feb to Mar and Jun to Dec. Peak levels at 100% in Apr to May.



Seedlings (15 records): All without any seedlings present.

Fire Survival (1 record): 100% survived by seedlings only.

Age to first flowering: First flowers recorded at 6 years, 50% estimated at 4-5 years, and 100% recorded at 6 years.



Height (44 records): 5% 0-0.2 m tall, 86% 0.2-1 m tall, 9% 1-2 m tall.

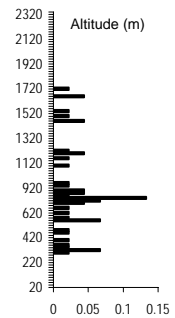
Pollinators (4 records): 50% bees or wasps, 50% beetles.

Detailed Pollinators (2 records): Monkey Beetle, Honey Bee.

Habitat:

Distance to Ocean (45 records): 100% inland - further than 2 km from coast.

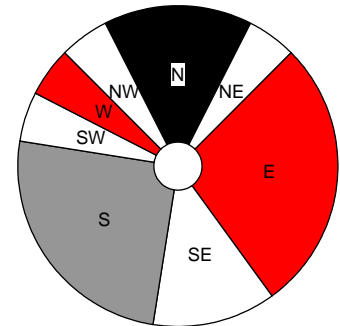
Altitude (45 records): 280 - 1620 m; 540 *lq* - 720 *med* - 780 *uq*m.



Landform (44 records): 77% deep soil, 11% shallow soil, 7% swamp, 5% rocky outcrops.

Slope (45 records): 44% gentle incline, 40% steep incline, 13% hill top, 2% cliff.

Aspect (40 records): 36% East, 34% South, 21% North, 9% West.



Soil Type (43 records): 56% sandy, 19% loamy, 14% gravelly, 7% rocky, 5% peaty.

Soil Colour (42 records): 55% grey, 29% brown, 10% black, 7% white.

Geology (45 records): 93% sandstone, 4% shale, 2% silcrete or ferricrete.

Vegetation (44 records): 98% shrubland, 2% thicket.

Conservation Status and Threat:

Red Data List Status: Endangered A4c.

Occurrence (Fynbos): 1 256 km² with 31% conserved and 10% lost; **Occupancy:** 60km² with 31% conserved and 2% lost. **Fragmentation index:** 3%.

Nature Reserves (45 records): 22% in nature reserves.

Habitat destruction (44 records): 89% extensive natural habitat, 11% islands.

Alien Invasive Species (42 records): 40% *Pinus*, 40% none, 14% *Hakea*, 2% Fabaceae (chiefly alien *Acacia*), 2% Myrtaceae.

Alien Density (42 records): 40% alien-free,
48% sparse, 7% abundant, 2% dense,
2% impenetrable.

Cultivation & Utilization:

Picking (37 records): 100% no sign of picking.

Cultivation Status: No noted cultivation.

Atlassers Notes:

Heavily chisselled by *Otomys Vlei* Rat? Almost
every plant chopped down to half size
(ASP94102612).

Confusing Species: Rarely confused with *S.*
confusa.

Records of identification queries = 4.

Records of corrected identification queries = 2.

Variation and Taxonomy: No variation noted.

Distribution: Add.

INCLUDEPICTURE

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Spatalla thyrsiflora Salisb. ex Kn. 1809
Swan-neck Spoon

Other Common Names: Thyrse-flower
Spatalla.

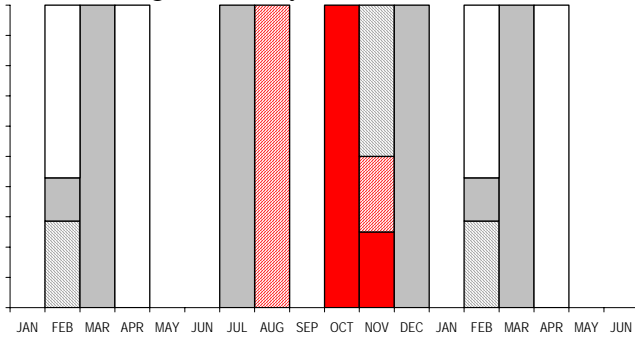
Other Scientific Names: *spatalloides* RBr
1810.

23 Records

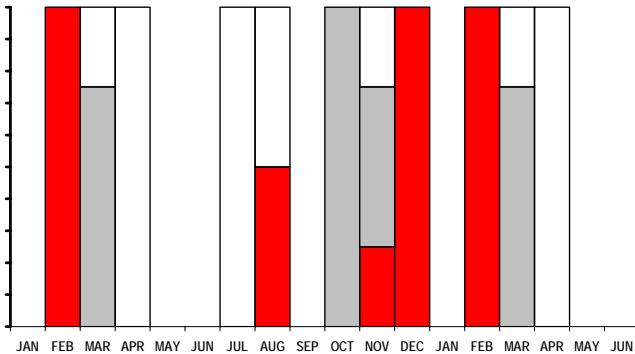
Population (23 records): 22% Common,
35% Frequent, 43% Rare.

Dispersion (19 records): 63% clumped,
37% variable.

Flowering (23 records with: Jan 0, Feb 7, Mar 4, Apr 1, May 0, Jun 0, Jul 2, Aug 2, Sep 0, Oct 1, Nov 4, Dec 2): Buds from Aug and Nov; Flowering from Oct to Nov; Peak Flowering not noted; Over from Feb and Nov; Fruit from Mar, Jul and Dec; Nothing from Feb and Apr. Peak levels unreliable at 100% in Oct-Nov. Historically recorded as flowering erratically from Oct to Dec.



Growth (23 records with: Jan 0, Feb 7, Mar 4, Apr 1, May 0, Jun 0, Jul 2, Aug 2, Sep 0, Oct 1, Nov 4, Dec 2): Much from Nov to Feb, and Aug; Rare from Mar and Oct to Nov; None from Mar to Aug and Nov. Peak levels unreliable at 100% in Dec to Feb.



Seedlings (10 records): All without any seedlings present.

Fire Survival (3 records): 100% resprouted from underground boles.

Age to first flowering: First flowers recorded at 2 years, 50% estimated at 1 years, and 100% recorded at 2 years.



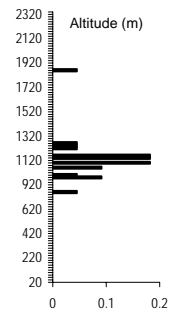
Height (23 records): 22% 0-0.2 m tall,
78% 0.2-1 m tall.

Pollinators (1 record): 100% beetles.
Detailed Pollinators: No additional data.

Habitat:

Distance to Ocean (22 records):
100% inland - further than 2 km from coast.

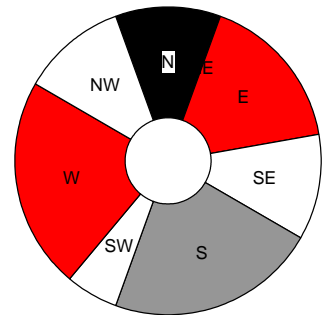
Altitude (22 records): 740 - 1760 m;
940_{lq} - 1000_{med} - 1040_{uq}m.



Landform (22 records):
77% deep soil, 23% shallow soil.

Slope (22 records): 45% gentle incline,
32% steep incline,
23% hill top.

Aspect (18 records):
33% West,
31% South,
19% East,
17% North.



Soil Type (21 records):
48% loamy,
33% sandy,
14% clayey,
5% gravelly.

Soil Colour (22 records): 55% brown,
27% grey, 14% yellow, 5% red.

Geology (22 records): 36% sandstone,
36% granite, 27% shale.

Vegetation (21 records): 100% shrubland.

Conservation Status and Threat:

Red Data List Status: Vulnerable D2(ii).

Occurrence (Fynbos): 159 km² with 95% conserved and 1% lost; Occupancy: 23 km² with 71% conserved and 8% lost.
Fragmentation index: 14%.

Nature Reserves (22 records): 50% in nature reserves.

Habitat destruction (22 records):
95% extensive natural habitat, 5% naturally linear habitats.

Alien Invasive Species (22 records):
50% *Pinus*, 36% *Hakea*, 14% none.

Alien Density (22 records): 14% alien-free,
82% sparse, 5% abundant.

Cultivation & Utilization:

Picking (15 records): 100% no sign of picking.
Cultivation Status: No noted cultivation.

Atlasers Notes:

Probably about 20 plants (NAH98071102);
Seems to favour the granite-sandstone
contact zone; About 200 plants in vicinity of
path (NAH96110304).

Confusing Species: None, especially as it is a
resprouter. More likely to be overlooked
than misidentified.:

Records of identification queries = 2.

Records of corrected identification queries = 1.

Variation and Taxonomy: No variation noted.

Distribution: Caledon Swartberg not found.
Recorded there by Niven about 1800 and
Mund (date?)

Add.

INCLUDEPICTURE

"C:\\temp\\atlas\\SPTHYR_m.jpg" *

MERGEFORMAT \d

Spatalla tulbaghensis (Phill.) Rourke 1911, 1969
Shaggy-hair Spoon

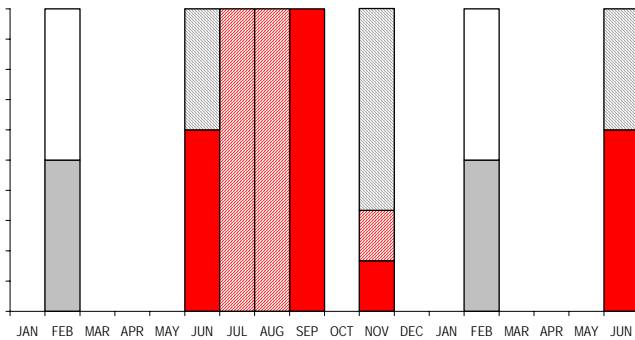
Other Common Names: None known.
Other Scientific Names: *None*.

23 Records

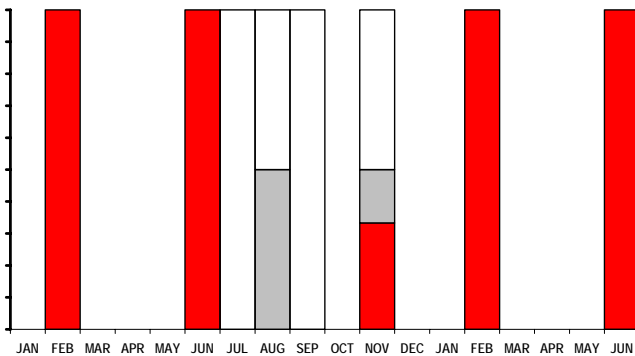
Population (23 records): 35% Common, 65% Frequent.

Dispersion (23 records): 70% clumped, 22% variable, 9% evenly distributed.

Flowering (23 records with: Jan 0, Feb 2, Mar 0, Apr 0, May 0, Jun 10, Jul 1, Aug 2, Sep 2, Oct 0, Nov 6, Dec 0): Buds from Jul 100 - Aug 100 - Nov 17 -; Flowering from Jun 60 - Sep 100 - Nov 17 -; Peak Flowering from ; Over from Jun 40 - Nov 67 -; Fruit from Feb 50 -; Nothing from Feb 50. Peak levels at % in. Historically recorded as flowering from XXX.



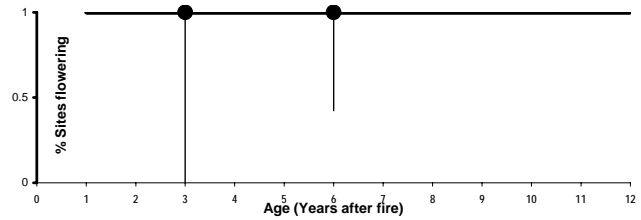
Growth (23 records with: Jan 0, Feb 2, Mar 0, Apr 0, May 0, Jun 10, Jul 1, Aug 2, Sep 2, Oct 0, Nov 6, Dec 0): Much from Feb 100 - Jun 100 - Nov 33 -; Rare from Aug 50 - Nov 17 -; None from Jul 100 - Aug 50 - Sep 100 - Nov 50.



Seedlings (17 records): Absent in -6%: fewer seedlings than prefire adults in 6 cases, and more in 3 cases. Seedlings found in Jun 9.

Fire Survival (10 records): 70% escaped fires in fire-safe areas, 30% survived by seedlings only.

Age to first flowering: y3 100% (1), y6 100% (3), y15 100% (1), y19 100% (6). First flowers recorded at 3 years, 50% estimated at xx years, and 100% recorded at 3 years.



Height (23 records): 17% 0-0.2 m tall, 83% 0.2-1 m tall.

Pollinators (13 records): 77% none observed, 15% bees or wasps, 8% butterflies or moths.

Detailed Pollinators (4 records): Solitary Bee (2), Wasp (unspecified) (1), Moth (unspecified) (1).

Habitat:

Distance to Ocean (23 records): 100% inland - further than 2 km from coast.

Altitude (23 records): 800 - 1680 m; 900 *lq* - 920 *med* - 920 *uq*m.

Landform (23 records): 57% deep soil, 35% swamp, 9% riverine.

Slope (23 records): 43% gentle incline, 26% hill top, 22% platform, 9% valley bottom.

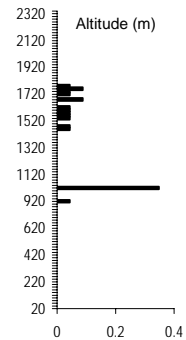
Aspect (19 records): 47% West, 37% East, 11% South, 5% North.

Soil Type (23 records): 87% sandy, 9% loamy, 4% peaty.

Soil Colour (23 records): 57% white, 35% grey, 4% black, 4% brown.

Geology (23 records): 78% sandstone, 22% Tertiary sands.

Vegetation (23 records): 100% shrubland.



Conservation Status and Threat:

Red Data List Status: Endangered
 B1a(i,ii)b(i,ii,iii,iv,v)c(iv)+
 2a(i,ii)b(i,ii,iii,iv,v)c(iv)

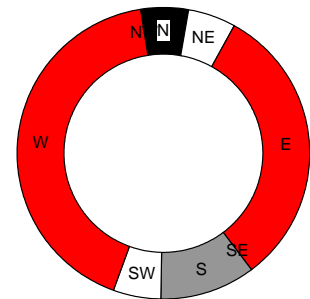
Occurrence (Fynbos): 40 km² with 0% conserved and 3% lost; **Occupancy:** 17 km² with 0% conserved and 7% lost. **Fragmentation index:** 40%.

Nature Reserves (23 records): 0% in nature reserves - unconserved.

Habitat destruction (23 records): 74% extensive natural habitat, 26% islands.

Alien Invasive Species (23 records): 61% none, 35% *Pinus*, 4% Fabaceae (chiefly alien *Acacia*).

Alien Density (23 records): 61% alien-free, 35% sparse, 4% abundant.



Cultivation & Utilization:

Picking (20 records): 100% no sign of picking.

Cultivation Status: No noted cultivation.

Atlassers Notes:

Disturbed land: some bush has been cut short and is grazed by cattle - spatallas appear untouched (WIJY0091708); Most of the plants are growing right on the edge of a trench which is collapsing (NGFY0072904); In the more northern plot most of plants are growing on disturbed soil at edge of a deep furrow (WIJY0091708);

There were 12 plants and 3 dead ones (NGFY0072904); Some 15 live and 1 dead (JIDY1021401); Several plants at head of steep mountain stream showing signs of drought-stress (RTUY4061001)

About 50 plants in area of 30 X 225 m (RTUY4061002); About 90 plants in area of 15 X 70 m (RTUY4061003); About 91 plants in area of 25 X 60 m (RTUY4061004); About 350 plants in area of 40 X 70 m (RTUY4061005); About 22

plants in area of 15 X 80 m (RTUY4061006); About 1000 plants in area of 70 X 100 m (RTUY4061101); About 500 plants in area of 25 X 80 m (RTUY4061801); About 250 plants in area of 30 X 30 m (RTUY4061802); About 160 plants in area of 20 X 45 m (RTUY4061803); There were only about 20 floriferous plants in one patch - see mention of 50 plants in 1991 CNC species report! (SHR94090401); About 13 plants seen (WIJY0091708);

Confusing Species: None..

Records of identification queries = 1.

Variation and Taxonomy: Described by Phillips as a *Sorocephalus*, on account of its short, rounded head.

Distribution: Add.

INCLUDEPICTURE

"C:\\temp\\atlas\\SPTULB_m.jpg" *

MERGEFORMAT \d

Spatalla barbiger Salisb. ex Kn. 1809
Fine-leaf Spoon

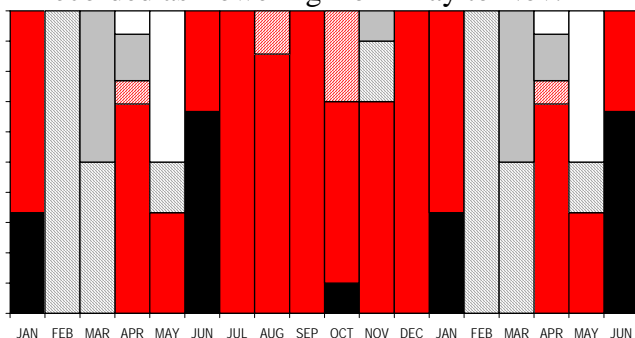
Other Common Names: Bearded *Spatalla*.
Other Scientific Names: *burchellii* Phill 1910,
sericea R.Br. 1810, *sericifolia* (Poir.) 1816.

68 Records

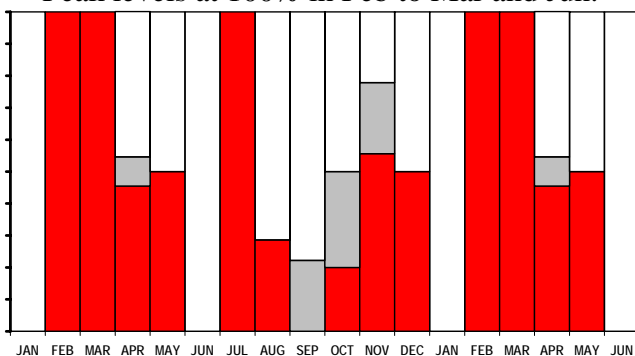
Population (68 records): 1% Abundant,
 18% Common, 57% Frequent, 24% Rare.

Dispersion (61 records): 64% clumped,
 18% evenly distributed, 18% variable.

Flowering (68 records with: Jan 3, Feb 1, Mar 2, Apr 13, May 6, Jun 3, Jul 2, Aug 7, Sep 9, Oct 10, Nov 10, Dec 2): Buds from Oct; Flowering from Apr to Jan; Peak Flowering from Jan and Jun; Over from Feb to Mar; Fruit from Mar; Nothing from May. Peak levels at 100% in Jun to Feb. Historically recorded as flowering from May to Nov.



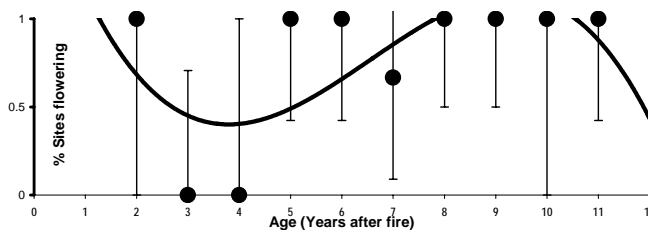
Growth (62 records with: Jan 2, Feb 1, Mar 2, Apr 11, May 6, Jun 2, Jul 1, Aug 7, Sep 9, Oct 10, Nov 9, Dec 2): Much from Feb to May and Jul to Aug and Oct to Dec; Rare from Sep to Nov; None from Apr to Jan. Peak levels at 100% in Feb to Mar and Jun.



Seedlings (18 records): Absent in 67%: fewer seedlings than prefire adults in 1 case, and more in 2 cases. Seedlings found in May and Sep (2).

Fire Survival (4 records): 75% survived by seedlings only, 25% eliminated from the area by fires.

Age to first flowering: First flowers recorded at 2 years, 50% estimated at 4-5 years, and 100% recorded at 5 years.



Height (68 records): 9% 0-0.2 m tall, 90% 0.2-1 m tall, 1% 1-2 m tall.

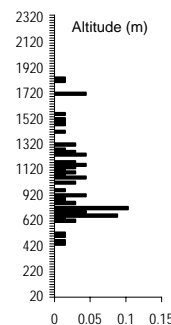
Pollinators : No data.

Detailed Pollinators: No additional data.

Habitat:

Distance to Ocean (68 records): 100% inland - further than 2 km from coast.

Altitude (68 records): 420 - 1740 m; 680 *lq* - 820 *med* - 1060 *uq*m.



Landform (68 records): 66% deep soil, 28% shallow soil, 6% rocky outcrops.

Slope (68 records): 51% steep incline, 43% gentle incline, 6% hill top.

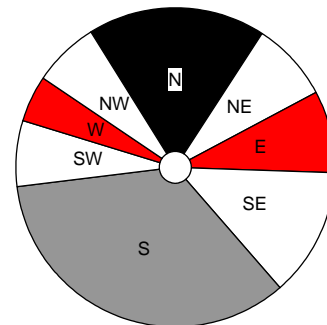
Aspect (61 records): 44% South, 29% North, 18% East, 9% West.

Soil Type (67 records): 60% sandy, 30% loamy, 6% gravelly, 3% clayey, 1% rocky.

Soil Colour (68 records): 43% grey, 26% brown, 18% black, 9% orange, 3% yellow, 1% white.

Geology (68 records): 91% sandstone, 9% shale.

Vegetation (68 records): 100% shrubland.



Conservation Status and Threat:

Red Data List Status: Near Threatened B1a(ii)b(i)+2a(ii)b(i).

Occurrence (Fynbos): 1 936 km² with 35% conserved and 9% lost; **Occupancy:** 108 km² with 68% conserved and 6% lost. **Fragmentation index:** 3%.

Nature Reserves (68 records): 87% in nature reserves - well conserved.

Habitat destruction (65 records): 100% extensive natural habitat.

Alien Invasive Species (67 records): 54% *Hakea*, 33% none, 10% *Pinus*, 1% Fabaceae (chiefly alien *Acacia*), 1% Myrtaceae.

Alien Density (66 records): 33% alien-free, 64% sparse, 3% abundant.

Cultivation & Utilization:

Picking (36 records): 100% no sign of picking.

Cultivation Status: No noted cultivation.

Atlassers Notes:

On 941129 we atlassed slightly differently - then we saw young plants. Noticeable this time we really had to search up and down just to search for them: the plants are scrawny, with leaves and old flowerheads only at tips of tall, thin, crumpled stems (AWA98030904).

Confusing Species: None noted.

Records of identification queries = 11.

Records of corrected identification queries = 2.

Variation and Taxonomy: No variation noted, despite the separation on two mountain ranges.

Distribution: Add.

INCLUDEPICTURE

"C:\\temp\\atlas\\SPBARB_m.jpg" *

MERGEFORMAT \d

Spatalla colorata Meisn. 1856
Shiny Spoon

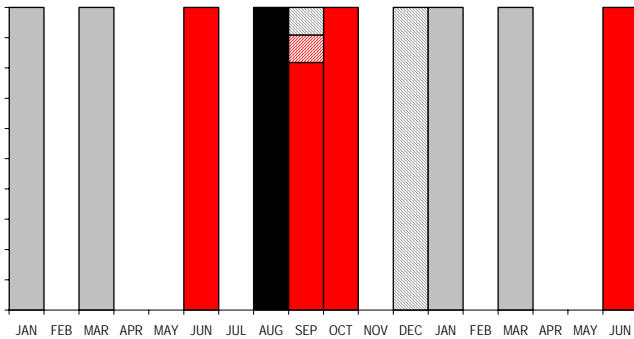
Other Common Names: None known.
Other Scientific Names: *None*.

23 Records

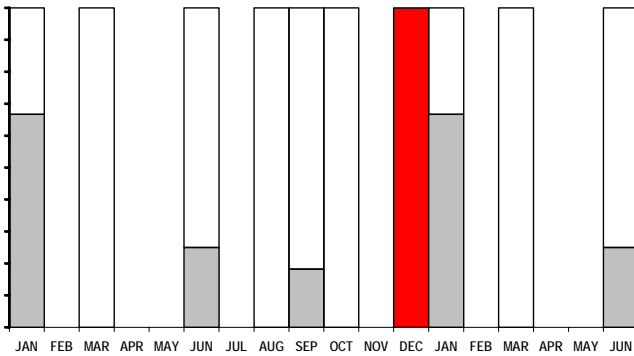
Population (23 records): 22% Common, 39% Frequent, 39% Rare.

Dispersion (19 records): 53% clumped, 32% variable, 11% evenly distributed, 5% widespread.

Flowering (23 records with: Jan 3, Feb 0, Mar 1, Apr 0, May 0, Jun 4, Jul 0, Aug 2, Sep 11, Oct 1, Nov 0, Dec 1): Buds not significant; Flowering from Jun and Sep to Oct; Peak Flowering from Aug; Over from Dec; Fruit from Jan to Mar; Nothing not recorded. Peak levels unreliable at 100% in June to Nov. Historically recorded as flowering from Jul to Nov.



Growth (23 records with: Jan 3, Feb 0, Mar 1, Apr 0, May 0, Jun 4, Jul 0, Aug 2, Sep 11, Oct 1, Nov 0, Dec 1): Much from Dec; Rare from Jan and Jun; None from Jan to Oct. Peak levels unreliable at 100% in Dec.



Seedlings (14 records): Absent in 71%: fewer seedlings than prefire adults in 1 case, and more in 1 case. Seedlings found in Jun.

Fire Survival (1 record): 100% survived by seedlings only.

Age to first flowering: First flowers recorded at 4 years, 50% estimated at 2-3 years, and 100% recorded at 4 years.



Height (21 records): 19% 0-0.2 m tall, 81% 0.2-1 m tall.

Pollinators: No data.

Detailed Pollinators: No additional data.

Habitat:

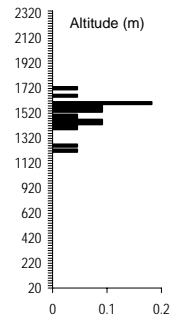
Distance to Ocean (22 records): 100% inland - further than 2 km from coast.

Altitude (22 records): 1100 - 1620 m; 1320 *lq* - 1400 *med* - 1460 *uq*m.

Landform (22 records): 82% deep soil, 9% rocky outcrops, 9% shallow soil.

Slope (22 records): 86% steep incline, 9% cliff, 5% gentle incline.

Aspect (22 records): 73% South, 18% East, 9% West.

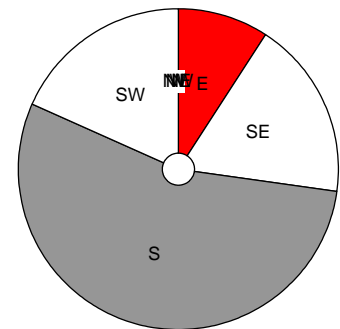


Soil Type (22 records): 41% peaty, 32% sandy, 23% loamy, 5% rocky.

Soil Colour (22 records): 64% black, 27% grey, 9% brown.

Geology (22 records): 91% sandstone, 9% shale.

Vegetation (22 records): 86% shrubland, 14% grassland.



Conservation Status and Threat:

Red Data List Status: Endangered

B1a(ii)c(iv)+2a(ii)c(iv).

Occurrence (Fynbos – excludes lost Riviersonderend population): 135 km² with 46% conserved and 2% lost; Occupancy: 31 km² with 94% conserved and 0% lost. Fragmentation index: 20%.

Nature Reserves (22 records): 100% in nature reserves - well conserved.

Habitat destruction (22 records):

100% extensive natural habitat.

Alien Invasive Species (22 records): 95% none, 5% *Pinus*.

Alien Density (22 records): 95% alien-free, 5% sparse.

Cultivation & Utilization:

Picking (21 records): 100% no sign of picking.

Cultivation Status: No noted cultivation.

Atlassers Notes: None.

Confusing Species: Add.
Records of identification queries = 3.

Variation and Taxonomy: No variation noted.

Distribution: Note Riviersonderend Peak not found. Add.

INCLUDEPICTURE

"C:\\temp\\atlas\\SPCOLO_m.jpg" *

MERGEFORMAT \d

Spatalla nubicola Rourke 1969 Medusa Spoon

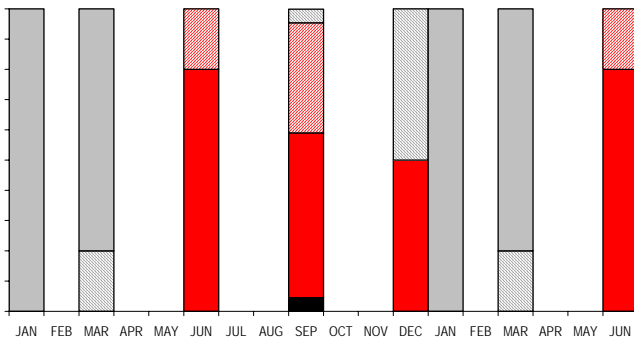
Other Common Names: None known.
Other Scientific Names: *None*.

43 Records

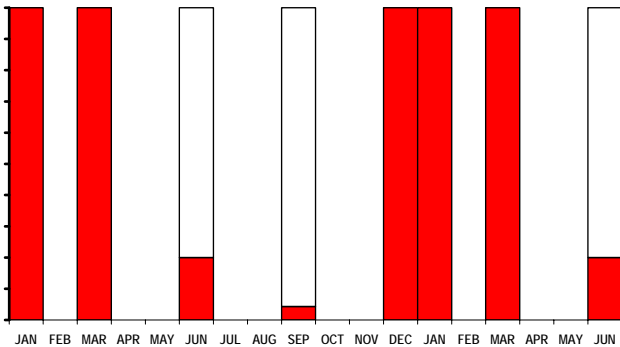
Population (43 records): 2% Abundant, 37% Common, 49% Frequent, 12% Rare.

Dispersion (41 records): 66% variable, 27% clumped, 7% widespread.

Flowering (42 records with: Jan 4, Feb 0, Mar 5, Apr 0, May 0, Jun 5, Jul 0, Aug 0, Sep 22, Oct 0, Nov 0, Dec 6): Buds from Jun to Sep; Flowering from Jun to Dec; Peak Flowering not significant; Over from Mar and Dec; Fruit from Jan to Mar; Nothing not recorded. Peak levels unreliable at 100% in Jun to Dec. Historically recorded as flowering from Sep to Dec.



Growth (43 records with: Jan 4, Feb 0, Mar 5, Apr 0, May 0, Jun 5, Jul 0, Aug 0, Sep 23, Oct 0, Nov 0, Dec 6): Much from Dec to Mar; Rare not recorded; None from Jun to Sep. Peak levels unreliable at 100% in Dec to Mar.



Seedlings (31 records): Absent in 87%; fewer seedlings than prefire adults in 2 cases. Seedlings found in Jun (2).

Fire Survival : No data.

Age to first flowering: First flowers recorded at 4 years, 50% estimated at 2-3 years, and 100% recorded at 4 years.



Height (43 records): 7% 0-0.2 m tall, 79% 0.2-1 m tall, 14% 1-2 m tall.

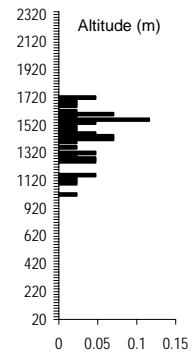
Pollinators (2 records): 100% flies.

Detailed Pollinators: No additional data.

Habitat:

Distance to Ocean (43 records): 100% inland - further than 2 km from coast.

Altitude (43 records): 900 - 1620 m; 1180 *lq* - 1340 *med* - 1460 *uq*m.



Landform (43 records): 70% deep soil, 26% shallow soil, 5% rocky outcrops.

Slope (43 records): 91% steep incline, 5% cliff, 2% gentle incline, 2% hill top.

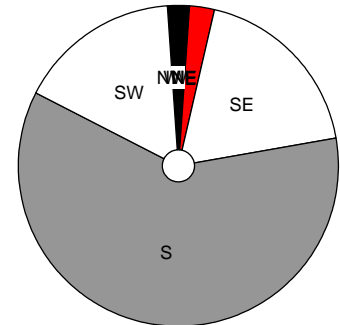
Aspect (43 records): 78% South, 10% West, 9% East, 2% North.

Soil Type (43 records): 53% peaty, 23% sandy, 16% loamy, 5% rocky, 2% gravelly.

Soil Colour (43 records): 58% black, 30% grey, 12% brown.

Geology (43 records): 93% sandstone, 7% shale.

Vegetation (43 records): 93% shrubland, 7% grassland.



Conservation Status and Threat:

Red Data List Status: Near Threatened D2(i).

Occurrence (Fynbos): 35 km² with 93% conserved and 0% lost; **Occupancy:** 34 km² with 89% conserved and 0% lost. **Fragmentation index:** 85%.

Nature Reserves (43 records): 98% in nature reserves - well conserved.

Habitat destruction (43 records): 98% extensive natural habitat, 2% naturally fragmented habitats.

Alien Invasive Species (42 records): 100% none.

Alien Density (42 records): 100% alien-free.

Cultivation & Utilization:

Picking (35 records): 100% no sign of picking.
Cultivation Status: No noted cultivation.

Atlassers Notes: None.

Confusing Species: None noted.

Variation and Taxonomy: No variation noted.

Distribution: Add.

INCLUDEPICTURE

"C:\\temp\\atlas\\SPNUBI_m.jpg" *

MERGEFORMAT \d

Spatalla parilis Salisb. ex Kn. 1809.

Spike Spoon

Other Common Names: Matched Spatalla.

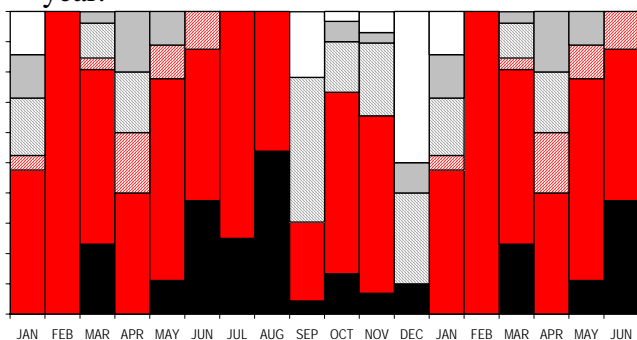
Other Scientific Names: *bolusii* (Phill.) 1910, *bombycina* Salisb. ex Kn. 1809, *polystachya* R.Br. 1810, *pyrimaldis* R.Br. 1810.

186 Records

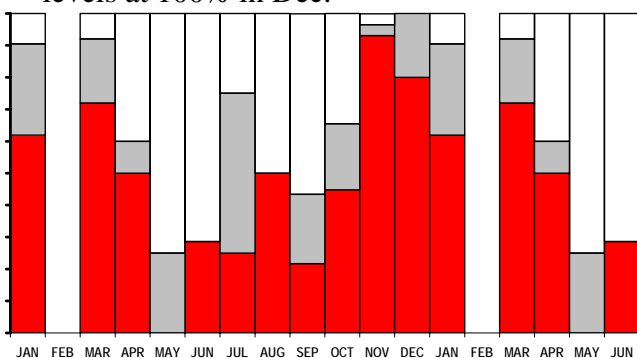
Population (186 records): 0.5% Abundant, 14% Common, 57% Frequent, 28% Rare.

Dispersion (162 records): 62% clumped, 33% variable, 3% evenly distributed, 2% widespread.

Flowering (185 records with: Jan 21, Feb 2, Mar 26, Apr 10, May 9, Jun 8, Jul 4, Aug 13, Sep 23, Oct 30, Nov 29, Dec 10): Buds from Apr; Flowering from Jan to Nov; Peak Flowering from Mar and Jun to Aug; Over from Sep and Nov to Dec; Fruit from Apr to May; Nothing from Sep and Dec 50. Peak levels at 100% in Jun to Aug. Historically recorded as flowering from throughout the year.



Growth (178 records with: Jan 21, Feb 0, Mar 25, Apr 10, May 8, Jun 7, Jul 4, Aug 12, Sep 23, Oct 29, Nov 29, Dec 10): Much from Jun to Apr; Rare from Dec to Mar and May, Jul and Sep to Oct; None from Apr to Oct. Peak levels at 100% in Dec.



Seedlings (77 records): Absent in 84%: fewer seedlings than prefire adults in 3 cases, and more in 3 cases. Seedlings found in Mar (2), Apr (3) and Jul.

Fire Survival (8 records): 100% survived by seedlings only.

Age to first flowering: First flowers recorded at 2 years, 50% estimated at 4 years, and 100% recorded at 8 years.



Height (185 records): 5% 0-0.2 m tall, 81% 0.2-1 m tall, 14% 1-2 m tall.

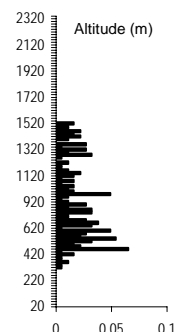
Pollinators (9 records): 67% bees or wasps, 11% wind, 11% flies, 11% beetles.

Detailed Pollinators (7 records): Solitary Bee (3), Honey Bee (2), Wasp (unspecified), Carpenter Bee.

Habitat:

Distance to Ocean (185 records): 100% inland - further than 2 km from coast.

Altitude (185 records): 300 - 1420 m; 540 *lq* - 740 *med* - 980 *uq*m.



Landform (185 records): 80% deep soil, 17% shallow soil, 2% swamp, 1% rocky outcrops.

Slope (185 records): 58% steep incline, 32% gentle incline, 5% hill top, 4% cliff, 0.5% platform.

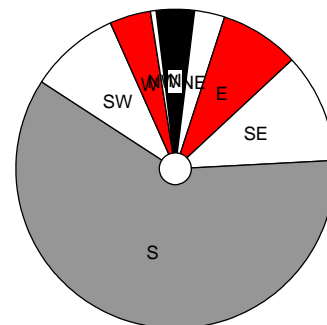
Aspect (173 records): 71% South, 14% East, 10% West, 5% North.

Soil Type (184 records): 43% loamy, 30% sandy, 20% peaty, 4% gravelly, 3% rocky, 0.5% clayey.

Soil Colour (184 records): 39% grey, 37% black, 22% brown, 1% white, 0.5% orange.

Geology (184 records): 97% sandstone, 3% shale.

Vegetation (184 records): 99% shrubland, 0.5% plantations.



Conservation Status and Threat:

Red Data List Status: Least Concern.

Occurrence (Fynbos): 1 319 km² with 26% conserved and 14% lost; **Occupancy:** 182 km² with 53% conserved and 6% lost. **Fragmentation index:** 10%.

Nature Reserves (185 records): 71% in nature reserves - well conserved.

Habitat destruction (182 records): 99% extensive natural habitat, 0.5% naturally linear habitats.

Alien Invasive Species (179 records):

66% none, 32% *Pinus*, 1% *Hakea*,
0.6% Fabaceae (chiefly alien *Acacia*).

Alien Density (179 records): 66% alien-free,
32% sparse, 1% abundant,
0.6% impenetrable.

Cultivation & Utilization:

Picking (109 records): 100% no sign of
picking.

Cultivation Status: No noted cultivation.

Atlassers Notes:

Is probably a shorter than normal flowerhead
form of *S. parilis* – lacking diagnostics of *S.*
colorata - herbarium specimens desired
(AMMY0101406-10).

A number of plants are dead - in other parts of
the Riversdale mountains plants are in peak
or over flowering - here seeds are fully
formed (AWA97032407); From here to 1200
m altitude plants widespread up to 2 m tall
and in competition with *Brunia* which stands
3 m tall (VJK94080703).

Large numbers of small solitary bees visiting
flowers (AGRY0101416); Black Carpenter
Bee of about 10 mm length
(WEL94030501).

Confusing Species: In the east high altitude
forms of this species approach *S. colorata* in
giss and caused identification problems.
Misidentification with *Diastella parilis* and
S. prolifera are attributed to typological
errors.

Records of identification queries = 20.

Records of corrected identification queries = 7.

Variation and Taxonomy: The stunted high
altitude form was described as *S. bolusii*.
Atlassers encountered this form east of the
known locations for this species, were it was
confused with *S. colorata*. This should be
investigated further.

Distribution: Add.

INCLUDEPICTURE

"C:\\temp\\atlas\\SPPARI_m.jpg" *

MERGEFORMAT \d

Spatalla prolifera (Thunb.) Salisb. ex Kn. 1781, 1809
Palmiet Spoon

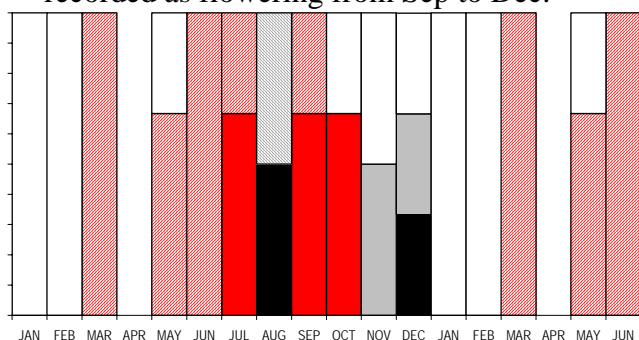
Other Common Names: Proliferous *Spatalla*.
Other Scientific Names: *None*.

32 Records

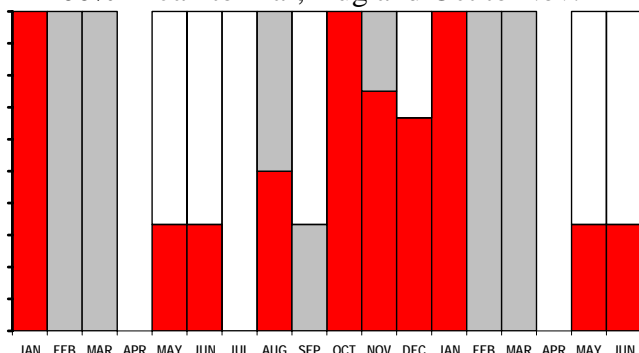
Population (32 records): 41% Common, 56% Frequent, 3% Rare.

Dispersion (32 records): 44% variable, 34% clumped, 22% evenly distributed.

Flowering (32 records with: Jan 2, Feb 2, Mar 1, Apr 0, May 3, Jun 3, Jul 6, Aug 2, Sep 3, Oct 3, Nov 4, Dec 3): Buds from Mar to Jul and Sep; Flowering from Jul and Sep to Oct; Peak Flowering from Aug and Dec; Over from Aug; Fruit from Nov to Dec; Nothing from Oct to Feb and May. Peak levels unreliable at 100% in Jul to Sep. Historically recorded as flowering from Sep to Dec.



Growth (31 records with: Jan 2, Feb 1, Mar 1, Apr 0, May 3, Jun 3, Jul 6, Aug 2, Sep 3, Oct 3, Nov 4, Dec 3): Much from Oct to Jan and May to Jun and Aug; Rare from Feb to Mar and Aug to Sep and Nov; None from May to Jul, Sep and Dec. Peak levels unreliable at 100% in Jan to Mar, Aug and Oct to Nov.



Seedlings (29 records): Absent in 93%; more seedlings than prefire adults in 1 case. Seedlings found in Oct.

Fire Survival (2 records): 100% survived by seedlings only.

Age to first flowering: First flowers recorded at 3 years, 50% estimated at 2-3 years, and 100% recorded at 6 years.



Height (32 records): 13% 0-0.2 m tall, 88% 0.2-1 m tall.

Pollinators : No data.

Detailed Pollinators: No additional data.

Habitat:

Distance to Ocean (32 records): 100% inland - further than 2 km from coast.

Altitude (32 records): 40 - 460 m; 60 *lq* - 80 *med* - 80 *uq*m.

Landform (32 records):

56% swamp, 44% deep soil.

Slope (32 records): 69% gentle incline, 25% steep incline, 3% valley bottom, 3% platform.

Aspect (32 records): 33% South, 23% East, 22% North, 22% West.

Soil Type (32 records):

75% peaty, 13% sandy, 13% loamy.

Soil Colour (32 records):

63% black, 22% brown, 16% grey.

Geology (31 records):

87% sandstone, 13% shale.

Vegetation (32 records): 97% shrubland, 3% grassland.

Conservation Status and Threat:

Red Data List Status: Endangered

B1a(i,ii)c(iv)+2a(i,ii)c(iv).²

Occurrence (Fynbos): 225 km² with 58% conserved and 11% lost; Occupancy: 26 km² with 71% conserved and 9% lost.

Fragmentation index: 11%.

Nature Reserves (32 records): 91% in nature reserves - well conserved.

Habitat destruction (32 records):

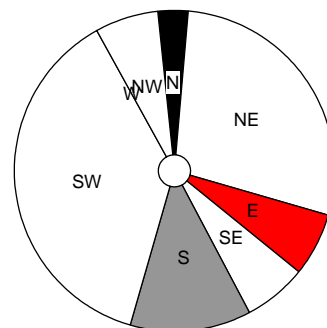
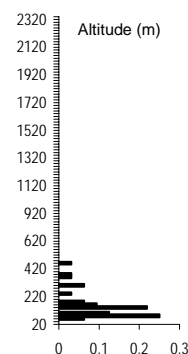
94% extensive natural habitat, 6% islands.

Alien Invasive Species (32 records): 78% none, 16% *Hakea*, 6% *Pinus*.

Alien Density (32 records): 78% alien-free, 22% sparse.

Cultivation & Utilization:

Picking (31 records): 100% no sign of picking.



Cultivation Status: No noted cultivation.

Atlassers Notes:

Some 5-10 % plants dead (AGR96070902);
Many dead plants prior to burn
(MAJ95022701).

About 600 plants confined to a seepage area
about 25 m² (MAJ93060701); One clump in
one particular stream (HCE96070902).

Confusing Species: None.
Records of identification queries = 2.

Variation and Taxonomy: No variation noted.

Distribution: Add. Indicator species for dams
INCLUDEPICTURE

"C:\\temp\\atlas\\SPPROL_m.jpg" *
MERGEFORMAT \d

Spatalla salsoloides (R.Br.) Rourke 1810, 1969
Kink-style Spoon

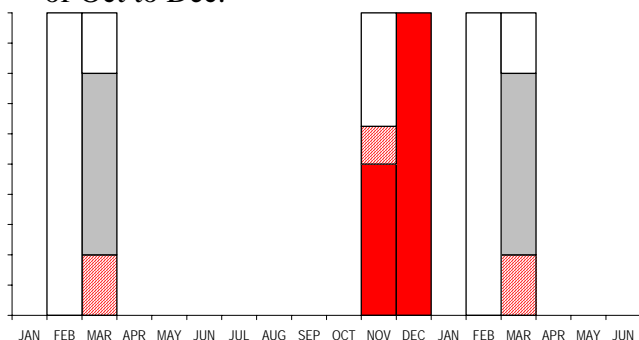
Other Common Names: None known.
Other Scientific Names: *None*.

16 Records

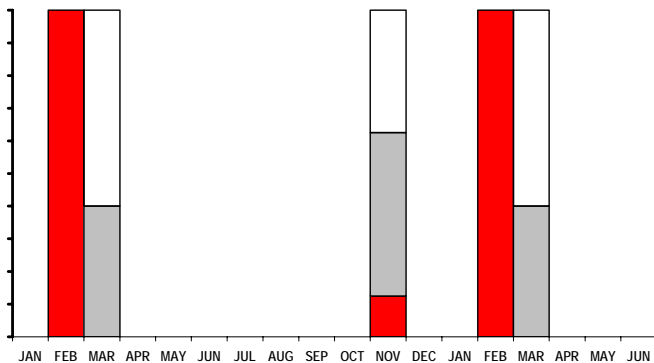
Population (16 records): 0% Common, 25% Frequent, 75% Rare.

Dispersion (11 records): 64% clumped, 27% variable, 9% evenly distributed.

Flowering (16 records with: Jan 0, Feb 2, Mar 5, Apr 0, May 0, Jun 0, Jul 0, Aug 0, Sep 0, Oct 0, Nov 8, Dec 1): Buds from Mar; Flowering from Nov to Dec; Peak Flowering and Over not recorded; Fruit from Mar; Nothing from Feb to Mar and Nov. Peak levels unreliable at 100% in Dec. Historically recorded as flowering from end of Oct to Dec.



Growth (15 records with: Jan 0, Feb 2, Mar 5, Apr 0, May 0, Jun 0, Jul 0, Aug 0, Sep 0, Oct 0, Nov 8, Dec 0): Much from Feb; Rare from Mar and Nov; None from Mar and Nov. Peak levels unreliable at 100% in Feb.



Seedlings (7 records): All without any seedlings present.

Fire Survival (2 records): 50% escaped fires in fire-safe areas, 50% resprouted from underground boles.

Age to first flowering: First flowers recorded at 3 years, 50% estimated at 2 years, and 100% recorded at 3 years. <does not tie up with graph – check!>



Height (16 records): 56% 0-0.2 m tall, 44% 0.2-1 m tall.

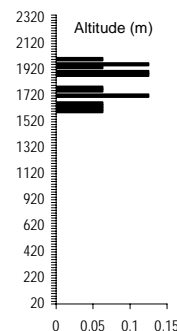
Pollinators (1 records): 100% flies.

Detailed Pollinators: No additional data.

Habitat:

Distance to Ocean (16 records): 100% inland - further than 2 km from coast.

Altitude (16 records): 1480 - 1900 m; 1600 *lq* - 1660 *med* - 1780 *uq*m.



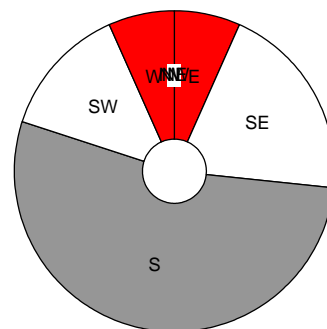
Landform (16 records): 50% deep soil, 50% shallow soil.

Slope (16 records): 44% steep incline, 31% gentle incline, 19% hill top, 6% cliff.

Aspect (15 records): 73% South, 13% East, 13% West.

Soil Type (16 records): 50% sandy, 25% rocky, 13% loamy, 13% peaty.

Soil Colour (15 records): 67% grey, 20% black, 7% brown, 7% white.



Geology (16 records): 100% sandstone.

Vegetation (15 records): 93% shrubland, 7% grassland.

Conservation Status and Threat:

Red Data List Status: Endangered

B1a(ii)c(iv)+2a(ii)c(iv), D.
Occurrence (Fynbos): 76 km² with 89% conserved and 1% lost; Occupancy: 23 km² with 72% conserved and 0% lost.
Fragmentation index: 30%.

Nature Reserves (16 records): 75% in nature reserves - well conserved.

Habitat destruction (16 records): 94% extensive natural habitat, 6% naturally linear habitats.

Alien Invasive Species (16 records): 100% none.

Alien Density (16 records): 100% alien-free.

Cultivation & Utilization:

Picking (13 records): 100% no sign of picking.
Cultivation Status: No noted cultivation.

Atlassers Notes:

Most flowerheads over but apparently another new crop in production (lots of buds) with still plenty of flowers (AGRY0112514).

No seedlings seen - only plants that escaped the fire in unburned patches noticed - so population probably an underestimate (AGRY1032310); Larger plants probably missed this fire (MAJ92112201).

About 60 plants on shale band (AGRY0112516); Seen: 3 dead and 1 alive (NAHY1030404).

Confusing Species: None noted.
Records of identification queries = 2.

Variation and Taxonomy: Robert Brown classified it as a *Sorocephalus*.

Distribution: Add.

INCLUDEPICTURE

"C:\\temp\\atlas\\SPSALS_m.jpg" *

MERGEFORMAT \d

Spatalla setacea (R.Br.) Rourke

Needle-leaf Spoon

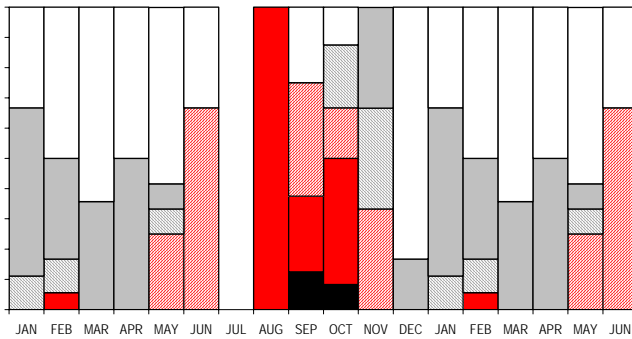
Other Common Names: None known.
Other Scientific Names: *begleyi* (Phill) 1915.

107 Records

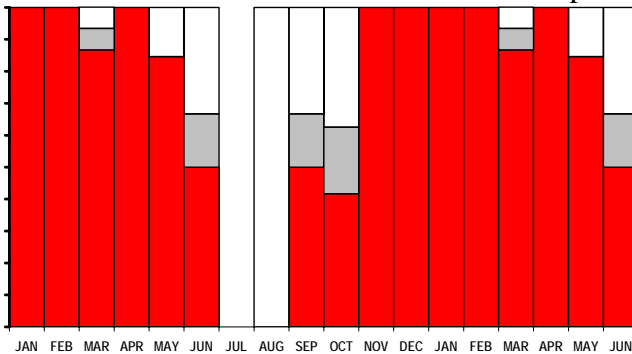
Population (107 records): 21% Common, 61% Frequent, 18% Rare.

Dispersion (99 records): 47% variable, 38% clumped, 13% widespread, 1% evenly distributed.

Flowering (105 records with: Jan 9, Feb 18, Mar 14, Apr 4, May 12, Jun 6, Jul 0, Aug 1, Sep 8, Oct 24, Nov 3, Dec 6): Buds from May to Jun, Sep and Nov; Flowering from Aug to Oct; Peak Flowering not significant; Over from Oct to Nov; Fruit from Jan to Apr and Nov; Nothing from Dec to Jun and Sep. Peak levels at 88% in Oct. Historically recorded as flowering from Oct to Dec with fruit from Jan to Feb.



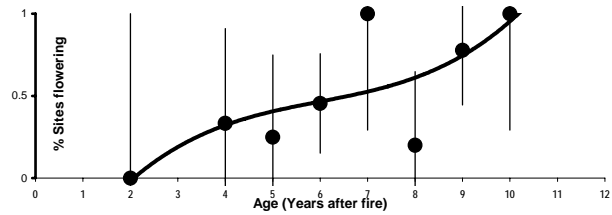
Growth (105 records with: Jan 9, Feb 18, Mar 15, Apr 4, May 13, Jun 6, Jul 0, Aug 1, Sep 6, Oct 24, Nov 3, Dec 6): Much from Sep to Jun; Rare from Oct; None from Jun to Oct. Peak levels at 100% in Nov to Feb and Apr.



Seedlings (60 records): All without any seedlings present.

Fire Survival (4 records): 100% survived by seedlings only.

Age to first flowering: First flowers recorded at 4 years, 50% estimated at 5-6 years, and 100% recorded at 7 years.



Height (106 records): 9% 0-0.2 m tall, 84% 0.2-1 m tall, 7% 1-2 m tall.

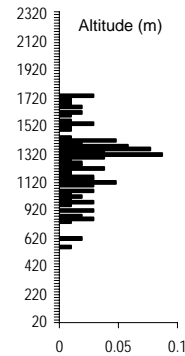
Pollinators (4 records): 75% bees or wasps, 25% flies.

Detailed Pollinators (3 records): Honey Bee.

Habitat:

Distance to Ocean (104 records): 100% inland - further than 2 km from coast.

Altitude (104 records): 540 - 1640 m; 1000 *lq* - 1180 *med* - 1260 *uq*m.



Landform (104 records): 78% deep soil, 20% shallow soil, 2% rocky outcrops.

Slope (104 records): 69% steep incline, 21% gentle incline, 5% hill top, 3% cliff, 2% valley bottom.

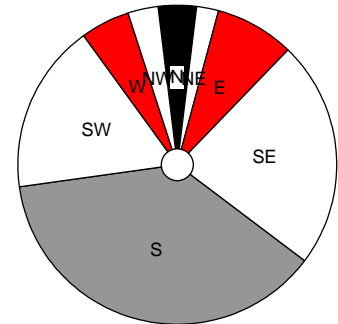
Aspect (99 records): 61% South, 17% West, 16% East, 7% North.

Soil Type (104 records): 51% peaty, 35% sandy, 10% loamy, 3% rocky, 2% gravelly.

Soil Colour (104 records): 44% black, 39% grey, 15% brown, 1.0% white.

Geology (100 records): 97% sandstone, 3% shale.

Vegetation (104 records): 99% shrubland, 1.0% grassland.



Conservation Status and Threat:

Red Data List Status: Least Concern.

Occurrence (Fynbos): 877 km² with 65% conserved and 19% lost; **Occupancy:** 97 km² with 89% conserved and 0% lost. **Fragmentation index:** 11%.

Nature Reserves (104 records): 98% in nature reserves - well conserved.

Habitat destruction (104 records): 97% extensive natural habitat, 2% naturally linear habitats, 1.0% corridors.

Alien Invasive Species (104 records): 67% none, 33% *Pinus*.

Alien Density (104 records): 67% alien-free, 33% sparse.

Cultivation & Utilization:

Picking (81 records): 100% no sign of picking.
Cultivation Status: No noted cultivation.

Atlassers Notes:

With hairless bracts (AGR91111610);
Small clump of about a dozen plants by the path
(HCE96062910); Two 2 clumps of about 5/6
plants each by the path (HCE96062911);
Also several dead plants on a small local south-
facing slope (TLE97042010).

Confusing Species: None noted, although
many identifications of non-flowering plants
were not attempted below genus level. This

high incidence is probably due to the plant
being conspicuous in new leaf even when not
in flower.

Records of identification queries = 11.
Records of corrected identification queries = 5.

Variation and Taxonomy: No variation noted.

Distribution: Add.

INCLUDEPICTURE

"C:\\temp\\atlas\\SPSETA_m.jpg" *

MERGEFORMAT \d

Spatalla ericoides Phill. 1910
Erica-leaf Spoon

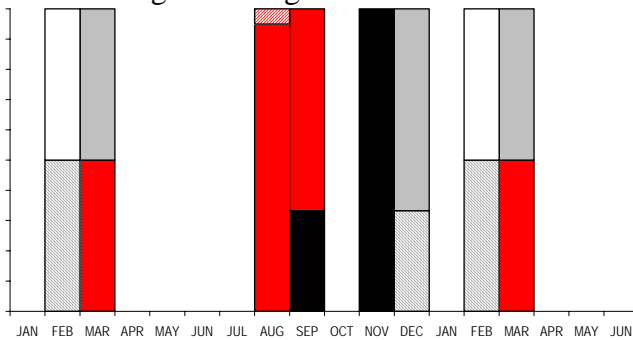
Other Common Names: Ericoid Spoon.
Other Scientific Names: *None*.

33 Records

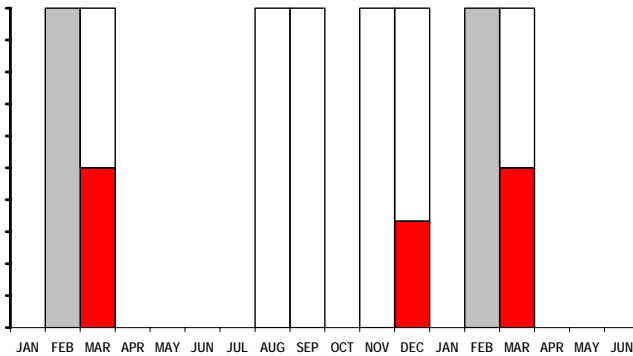
Population (33 records): 15% Common, 61% Frequent, 24% Rare.

Dispersion (28 records): 50% variable, 50% clumped.

Flowering (31 records with: Jan 0, Feb 2, Mar 2, Apr 0, May 0, Jun 0, Jul 0, Aug 20, Sep 3, Oct 0, Nov 1, Dec 3): Buds not significant; Flowering from Mar and Aug to Sep; Peak Flowering from Sep and Nov; Over from Feb and Dec; Fruit from Mar and Dec; Nothing from Feb. Peak levels unreliable at 100% in Aug to Nov. Historically recorded as flowering from Aug to Oct.



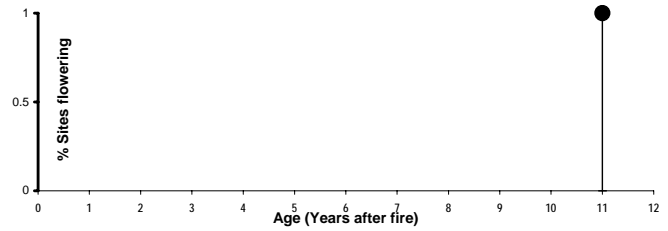
Growth (31 records with: Jan 0, Feb 2, Mar 2, Apr 0, May 0, Jun 0, Jul 0, Aug 20, Sep 3, Oct 0, Nov 1, Dec 3): Much from Mar and Dec; Rare from Feb; None from Mar to Dec. Peak levels unreliable at 100% in Feb.



Seedlings (12 records): All without any seedlings present.

Fire Survival : No data.

Age to first flowering: First flowers recorded at 11 years, but no data for younger veld exits and this is probably a gross overestimate.



Height (31 records): 13% 0-0.2 m tall, 87% 0.2-1 m tall.

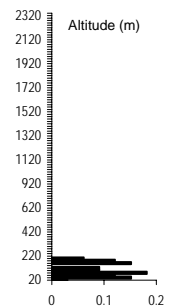
Pollinators : No data.

Detailed Pollinators: No additional data.

Habitat:

Distance to Ocean (33 records): 97% inland - further than 2 km from coast.

Altitude (33 records): 20 - 200 m; 40_{lq} - 80_{med} - 80_{uq}m.



Landform (31 records): 100% deep soil.

Slope (30 records): 57% gentle incline, 30% platform, 10% valley bottom, 3% hill top.

Aspect (20 records): 38% South, 35% West, 15% North, 13% East.

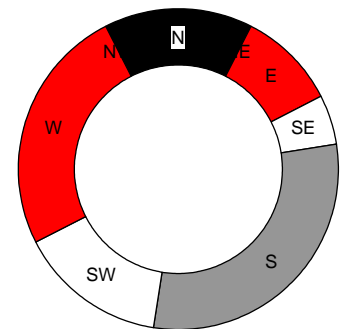
Soil Type (31 records): 87% sandy, 13% loamy.

Soil Colour (31 records): 61% grey, 29% white, 10% brown.

Geology (26 records):

54% sandstone, 23% Tertiary sands, 19% limestone, 4% silcrete or ferricrete.

Vegetation (33 records): 100% shrubland.



Conservation Status and Threat:

Red Data List Status: Endangered

B1a(ii)b(iv)+2a(ii)b(iv), D2(ii)
Occurrence (Fynbos): 50 km² with 16% conserved and 9% lost; Occupancy: 37 km² with 19% conserved and 9% lost.
Fragmentation index: 70%.

Nature Reserves (33 records): 24% in nature reserves.

Habitat destruction (30 records): 97% extensive natural habitat, 3% naturally linear habitats.

Alien Invasive Species (31 records): 48% Fabaceae (chiefly alien *Acacia*), 29% none, 13% *Pinus*, 10% Myrtaceae.

Alien Density (31 records): 29% alien-free, 61% sparse, 6% abundant, 3% dense.

Cultivation & Utilization:

Picking (25 records): 100% no sign of picking.

Cultivation Status: No noted cultivation.

Atlassers Notes:

Found only 10 plants (HCA93112503); Several hundred plants (SMRY2082902).

Confusing Species: None, although the western forms of *S. squamata* approach *S. ericoides*, but the enlarging bracts are diagnostic of the former.

Records of identification queries = 1.

Variation and Taxonomy: No variation known.

Distribution: Add.

INCLUDEPICTURE

"C:\\temp\\atlas\\SPERIC_m.jpg" *

MERGEFORMAT \d

Spatalla squamata Meisn. 1856
Silky Spoon

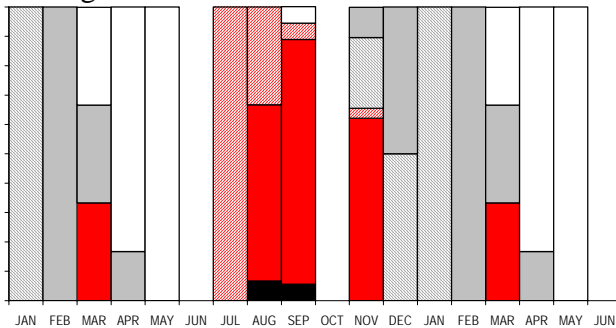
Other Common Names: Red-shell Spoon, Silky Unispoon.
Other Scientific Names: *None*.

104 Records

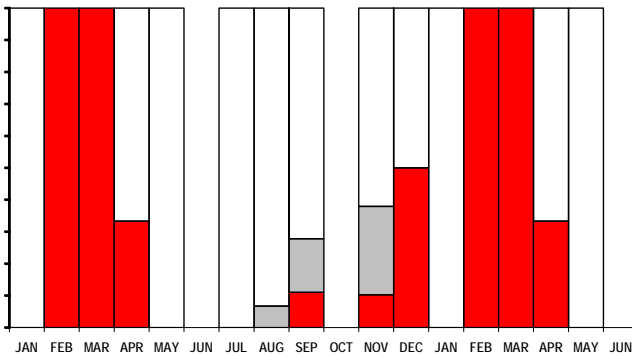
Population (100 records): 27% Common, 50% Frequent, 23% Rare.

Dispersion (80 records): 79% variable, 20% clumped, 1% widespread.

Flowering (92 records with: Jan 1, Feb 3, Mar 3, Apr 18, May 2, Jun 0, Jul 1, Aug 15, Sep 18, Oct 0, Nov 29, Dec 2): Buds from Jul to Aug; Flowering from Mar and Aug to Nov; Peak Flowering not significant; Over from Nov to Jan; Fruit from Feb to Mar and Dec; Nothing from Mar to May. Peak levels at 100% in Aug. Historically recorded as flowering from a well defined period from Aug to Oct.



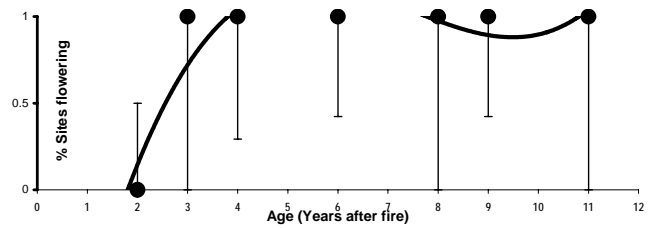
Growth (91 records with: Jan 1, Feb 2, Mar 3, Apr 18, May 2, Jun 0, Jul 1, Aug 15, Sep 18, Oct 0, Nov 29, Dec 2): Much from Feb to Apr and Dec; Rare from Nov; None from Apr to Jan. Peak levels at 100% in Feb to Mar.



Seedlings (44 records): All without any seedlings present.

Fire Survival (11 records): 100% survived by seedlings only.

Age to first flowering: First flowers recorded at 3 years, 50% estimated at 2 years, and 100% recorded at 3 years.



Height (90 records): 18% 0-0.2 m tall, 82% 0.2-1 m tall.

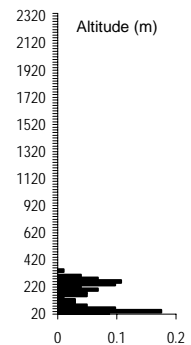
Pollinators: No data.

Detailed Pollinators: No additional data.

Habitat:

Distance to Ocean (103 records): 88% inland - further than 2 km from coast.

Altitude (103 records): 20 - 340 m; 20_{lq} - 60_{med} - 160_{uq} m.



Landform (91 records): 91% deep soil, 4% swamp, 2% lake edge, 1% rocky outcrops, 1% shallow soil.

Slope (91 records): 48% gentle incline, 31% platform, 16% hill top, 2% valley bottom, 1% steep incline, 1% dunes.

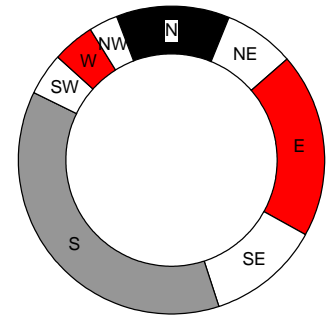
Aspect (67 records): 44% South, 29% East, 18% North, 9% West.

Soil Type (91 records): 93% sandy, 4% loamy, 2% peaty.

Soil Colour (90 records): 51% grey, 24% white, 13% brown, 8% yellow, 3% black.

Geology (86 records): 84% sandstone, 10% Tertiary sands, 2% limestone, 2% silcrete or ferricrete, 1% shale.

Vegetation (102 records): 98% shrubland, 1.0% agricultural lands, 1.0% plantations.



Conservation Status and Threat:

Red Data List Status: Near Threatened A2c.

Occurrence (Fynbos): 648 km² with 6% conserved and 40% lost; **Occupancy:** 119 km² with 14% conserved and 16% lost. **Fragmentation index:** 16%.

Nature Reserves (103 records): 23% in nature reserves.

Habitat destruction (88 records): 97% extensive natural habitat, 1% road verges, 1% islands, 1% naturally linear habitats.

Alien Invasive Species (89 records): 35% none, 27% Fabaceae (chiefly alien *Acacia*), 26% *Pinus*, 8% *Hakea*, 4% Myrtaceae.
Alien Density (89 records): 35% alien-free, 43% sparse, 16% abundant, 6% dense, 1% impenetrable.

Cultivation & Utilization:

Picking (65 records): 100% no sign of picking.
Cultivation Status: No noted cultivation.

Atlassers Notes:

Invisible when no flower or seedheads in old veld, but obvious as very young plants in young veld! (AGR96040505);

Confusing Species: Short leaf forms in the west can be confused with *S. ericoides* before the diagnostic bracts begin to expand.
Records of identification queries = 5.
Records of corrected identification queries = 3.

Variation and Taxonomy: The extreme western forms have hairy bracts in the involucre which approach *S. ericoides* in character.

Distribution: Add.

INCLUDEPICTURE

"C:\\temp\\atlas\\SPSQUA_m.jpg" *

MERGEFORMAT \d

Spatalla curvifolia Salisb. ex Kn. 1809
White-stalked Spoon

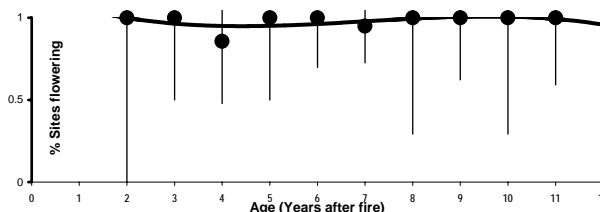
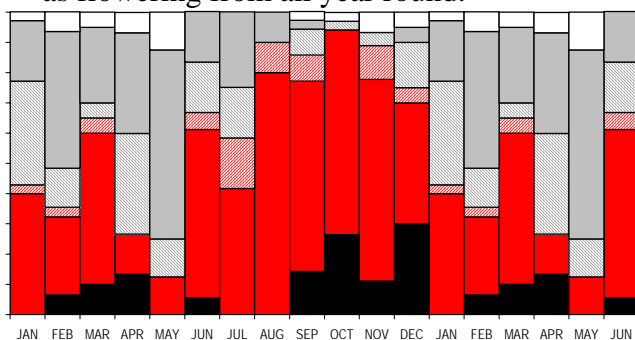
Other Common Names: Curve-leaf *Spatalla*.
Other Scientific Names: *galpini* Phill. 1910,
nivea R.Br. 1810, *pedunculata* R.Br. 1810.

310 Records

Population (307 records): 19% Common,
 62% Frequent, 20% Rare.

Dispersion (273 records): 53% clumped,
 41% variable, 4% widespread, 2% evenly
 distributed.

Flowering (301 records with: Jan 35, Feb 31,
 Mar 20, Apr 15, May 16, Jun 18, Jul 12, Aug
 20, Sep 35, Oct 34, Nov 45, Dec 20): Buds
 never prominent; Flowering from Jun to
 Mar; Peak Flowering from Oct and Dec;
 Over from Jan and Apr; Fruit from Jan to
 May and Jul; Nothing never prominent. Peak
 levels at 97% in Oct. Historically recorded
 as flowering from all year round.



Height (299 records): 14% 0-0.2 m tall,
 85% 0.2-1 m tall, 0.3% 1-2 m tall.

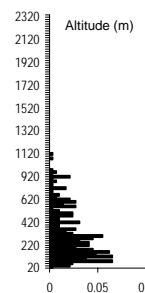
Pollinators (5 records): 60% bees or wasps,
 40% beetles.

Detailed Pollinators (1 record): Honey Bee.

Habitat:

Distance to Ocean (292 records):
 66% inland - further than 2 km
 from coast.

Altitude (292 records): 20 - 1020
 m; 120_{lq} - 240_{med} - 360_{uq}m.

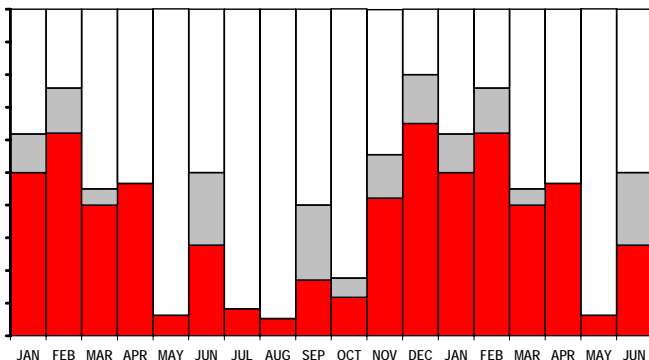


Landform (284 records):
 76% deep soil, 18% shallow
 soil, 6% rocky outcrops,
 0.7% swamp.

Slope (284 records): 43% steep
 incline, 42% gentle incline,
 8% hill top, 6% platform, 0.7% dunes,
 0.4% valley bottom.

Aspect (250 records): 59% South, 18% West,
 14% East, 9% North.

Growth (207 records with: Jan 34, Feb 29, Mar
 20, Apr 15, May 16, Jun 18, Jul 12, Aug 19,
 Sep 35, Oct 34, Nov 45, Dec 20): Much from
 Nov to Apr and Jun; Rare from Jun and Sep;
 None from all year round with a Dec to Feb
 low. Peak levels at 80% in Dec.



Soil Type (284
 records):

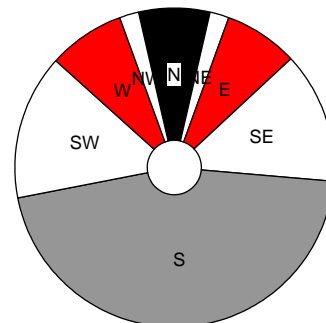
74% sandy,
 10% loamy,
 7% peaty,
 4% gravelly,
 4% rocky,
 1% clayey.

Soil Colour (281
 records):

76% grey,
 12% black,
 6% white, 4% brown, 2% yellow,
 0.4% orange.

Geology (288 records): 95% sandstone,
 2% silcrete or ferricrete, 1% Tertiary sands,
 0.7% conglomerate, 0.7% shale,
 0.3% limestone.

Vegetation (291 records): 99% shrubland,
 0.7% grassland.



Seedlings (131 records): Absent in 94%: fewer
 seedlings than prefire adults in 3 cases, and
 more in 1 case. Seedlings found in Jan, Jun,
 Aug and Dec.

Fire Survival (9 records): 78% survived by
 seedlings only, 11% eliminated from the area
 by fires, 11% escaped fires in fire-safe areas.

Age to first flowering: First flowers recorded
 at 2 years, 50% estimated at 2-3 years, and
 100% estimated at 5 years.

Conservation Status and Threat:

Red Data List Status: Near Threatened A2c
 Occurrence (Fynbos): 2 239 km² with 11%
 conserved and 33% lost; Occupancy:
 329 km² with 24% conserved and 14% lost.
 Fragmentation index: 9%.

Nature Reserves (292 records): 37% in nature
 reserves.

Habitat destruction (278 records):
 95% extensive natural habitat, 3% naturally
 linear habitats, 2% islands.

Alien Invasive Species (279 records):
 48% none, 33% *Pinus*, 10% Fabaceae

(chiefly alien *Acacia*), 7% *Hakea*,
2% Myrtaceae.

Alien Density (279 records): 48% alien-free,
46% sparse, 4% abundant, 1% dense.

Cultivation & Utilization:

Picking (197 records): 99% no sign of picking,
1% lightly picked.

Cultivation Status: No noted cultivation.

Witch's Broom Infestation: 1 records (0.3%).

Atlassers Notes:

Both *S. racemosa* and *S. curvifolia* on site –
unusual! (AGR95032605); Both *S. racemosa*
and *S. curvifolia* seen in flower in this plot
(PVR96081505); Interesting that *S.*
curvifolia on upper slopes as *S. racemosa* is
on plateau lower down (AGR98053105+10);

Heads and involucre bracts diagnostic but
leaves 16 mm long (AGRY3111203); Small-
leaf form (AJT94072306); Identification
accepted - both species recorded in area but a
long-stalked form of *S. racemosa*? Could it
be hybridization? (APE96012809); Very
robust specimen, but without swollen heads
characteristic of *S. curvifolia* – in bud?
(WIJ99050109).

Confusing Species: Considerable confusion
with *S. racemosa* was recorded, despite the
diagnostic feature of the swollen flowers in
fruiting stage being present almost year

round on the plants. Minor
misidentifications with *S. longifolia* and *S.*
mollis were also noted.

Records of identification queries = 46.

Records of corrected identification queries = 8.

Variation and Taxonomy: *Leaf curvature*
varies from straight and erect to very
strongly incurved. This is variable between
(and even within a population in a few cases)
populations and is apparently not confined to
a geographical area or habitat. It was not
remarked on by atlassers.

Flowerhead stalk length varies considerably
but there appears to be a geographical
pattern. However, taxonomical recognition
is apparently not warranted: East of the Bot
River (including Caledon Swartberg) or
Overberg Sandstone Fynbos: 5-30 mm
(usually 10-20 mm) long. West of Bot River
or Kogelberg Sandstone Fynbos: 20-70 mm
(usually 40-60 mm) long. Given that
flowerheads excluding the stalk are 30-70
mm long this difference is quite striking. It
was not remarked on by atlassers.

Distribution: Add.

INCLUDEPICTURE

"C:\\temp\\atlas\\SPCURV_m.jpg" *

MERGEFORMAT \d

Spatalla longifolia Salisb. ex Kn. 1809 Pink-stalked Spoon

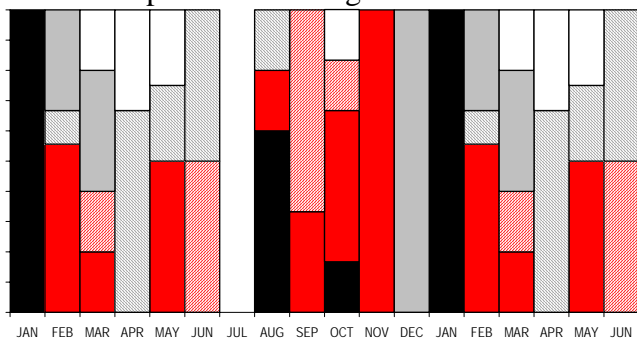
Other Common Names: Long-leaf *Spatalla*.
Other Scientific Names: *bracteata* R.Br. 1810,
bracteolaris Poir. 1816, *cylindrica* Phill.
 1910.

40 Records

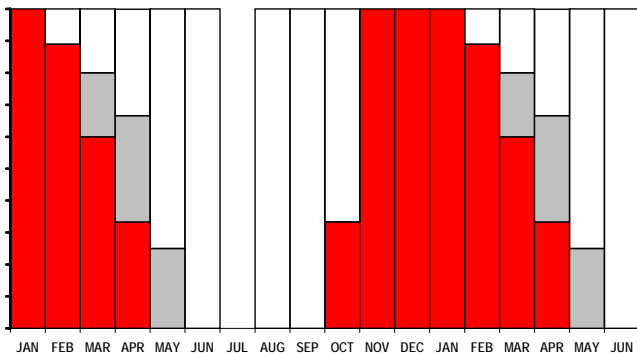
Population (39 records): 8% Common,
 56% Frequent, 36% Rare.

Dispersion (34 records): 65% clumped,
 35% variable.

Flowering (40 records with: Jan 1, Feb 9, Mar 5, Apr 3, May 4, Jun 2, Jul 0, Aug 5, Sep 3, Oct 6, Nov 1, Dec 1): Buds from Mar, Jun and Sep; Flowering from Feb to Mar, May, Aug to Nov; Peak Flowering from Jan and Aug; Over from Apr to Aug; Fruit from Feb to Mar and Dec; Nothing from Mar to May. Peak levels unreliable at 100% in Jun to Sep. Historically recorded as flowering in a well-defined period from Aug to Nov.



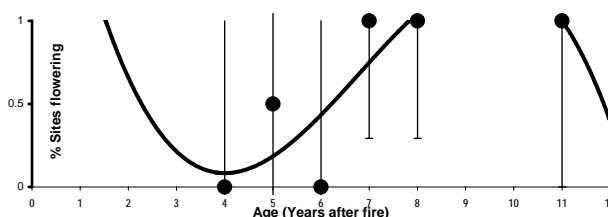
Growth (40 records with: Jan 1, Feb 9, Mar 5, Apr 3, May 4, Jun 2, Jul 0, Aug 5, Sep 3, Oct 6, Nov 1, Dec 1): Much from Oct to Apr; Rare from Mar to May; None from Mar to Oct. Peak levels unreliable at 100% in Nov to Jan.



Seedlings (22 records): Absent in 91%; fewer seedlings than prefire adults in 1 case. Seedlings found in Jun.

Fire Survival : No data.

Age to first flowering: First flowers recorded at 5 years, 50% estimated at 5 years, and 100% recorded at 7 years.



Height (39 records): 18% 0-0.2 m tall,
 77% 0.2-1 m tall, 5% 1-2 m tall.

Pollinators (1 records): 100% bees or wasps.
Detailed Pollinators: No additional data.

Habitat:

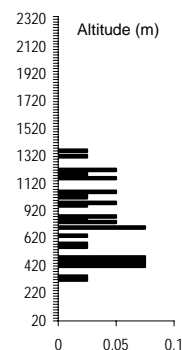
Distance to Ocean (40 records): 75% inland - further than 2 km from coast.

Altitude (40 records): 300 - 1260 m; 440_{lq} - 700_{med} - 780_{uq}m.

Landform (40 records): 63% deep soil, 38% shallow soil.

Slope (40 records): 52% steep incline, 48% gentle incline.

Aspect (40 records): 48% South, 36% East, 14% West, 3% North.

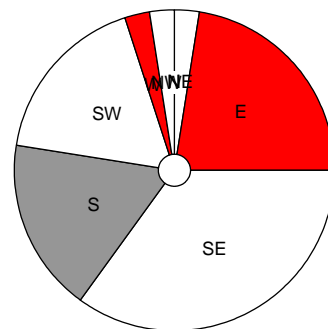


Soil Type (40 records): 65% sandy, 10% loamy, 10% clayey, 8% gravelly, 5% rocky, 3% peaty.

Soil Colour (40 records): 60% grey, 18% brown, 15% black, 5% orange, 3% white.

Geology (40 records): 88% sandstone, 13% shale.

Vegetation (40 records): 98% shrubland, 3% plantations.



Conservation Status and Threat:

Red Data List Status: Near Threatened
 B1a(i,ii)b(iv)+2a(i,ii)b(iv), D2.

Occurrence (Fynbos): 694 km² with 42% conserved and 31% lost; **Occupancy:** 54 km² with 61% conserved and 4% lost. **Fragmentation index:** 7.

Nature Reserves (40 records): 63% in nature reserves - well conserved.

Habitat destruction (39 records): 100% extensive natural habitat.

Alien Invasive Species (40 records): 60% *Pinus*, 25% none, 13% Fabaceae (chiefly alien *Acacia*), 3% *Hakea*.

Alien Density (40 records): 25% alien-free, 45% sparse, 25% abundant, 5% dense.

Cultivation & Utilization:

Picking (36 records): 100% no sign of picking.

Cultivation Status: No noted cultivation.

Atlassers Notes:

About 150 plants – the largest single stand I have seen of this species in the Kogelberg area! (MAJ99102102).

Confusing Species: Both *S. curvifolia* and *S. racemosa* proved problematic in identifying this species. This was one species where a

magnifying glass is required to look at the involucre bracts.

Records of identification queries = 12.

Records of corrected identification queries = 8.

Variation and Taxonomy: No variation known.

Distribution: Found as scattered individuals not as dense stands .Add.

INCLUDEPICTURE

"C:\\temp\\atlas\\SPLONG_m.jpg" *

MERGEFORMAT \d

Spatalla mollis R.Br. 1810 Woolly Spoon

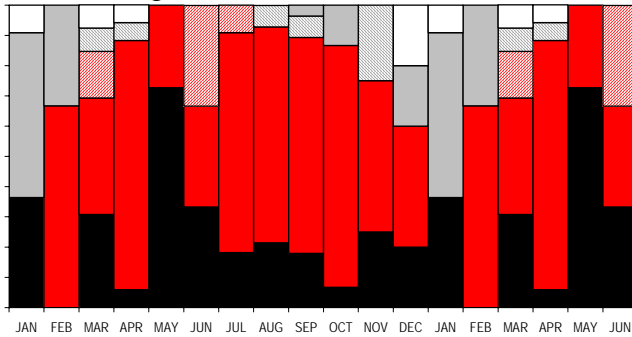
Other Common Names: None known.
Other Scientific Names: *brachyloba* Phill 1910, *pilosa* (Phill) 1910.

141 Records

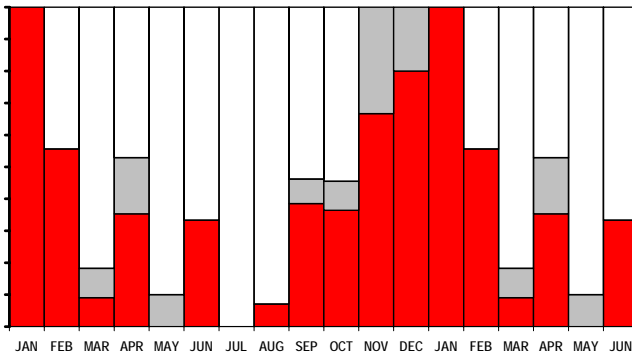
Population (141 records): 0.7% Abundant, 46% Common, 48% Frequent, 6% Rare.

Dispersion (137 records): 61% variable, 36% clumped, 3% widespread, 0.7% evenly distributed.

Flowering (141 records with: Jan 11, Feb 9, Mar 13, Apr 17, May 11, Jun 3, Jul 11, Aug 14, Sep 28, Oct 15, Nov 4, Dec 5): Buds from Jun; Flowering from Feb to Dec; Peak Flowering from Nov to Jan, Mar, May to Jun and Aug; Over from Nov; Fruit from Dec to Feb; Nothing from Dec. Peak levels at 100% in May to Sep. Historically recorded as flowering from Jul to Dec.



Growth (131 records with: Jan 11, Feb 9, Mar 11, Apr 17, May 10, Jun 3, Jul 11, Aug 14, Sep 26, Oct 11, Nov 3, Dec 5): Much from Sep to Feb, Apr, and Jun; Rare from Nov to Dec; None from Feb to Oct. Peak levels at 100% in Nov to Jan.



Seedlings (52 records): Absent in 81%: more seedlings than prefire adults in 5 cases. Seedlings found in May (4) and Dec.

Fire Survival (12 records): 92% survived by seedlings only, 8% eliminated from the area by fires.

Age to first flowering: First flowers recorded at 4 years, 50% estimated at 3-4 years, and 100% recorded at 6 years.



Height (141 records): 26% 0-0.2 m tall, 74% 0.2-1 m tall, 0.7% 1-2 m tall.

Pollinators (7 records): 71% bees or wasps, 14% flies, 14% none observed.

Detailed Pollinators (1 record): Honey Bee.

Habitat:

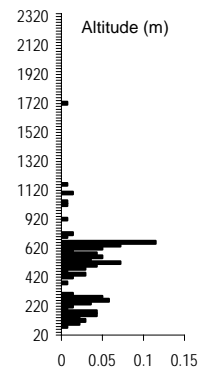
Distance to Ocean (139 records): 94% inland - further than 2 km from coast.

Altitude (139 records): 60 - 1620 m; 240_{lq} - 500_{med} - 580_{uq}m.

Landform (138 records): 86% deep soil, 9% shallow soil, 4% swamp, 0.7% riverine.

Slope (138 records): 65% gentle incline, 22% steep incline, 7% hill top, 6% platform.

Aspect (125 records): 40% South, 25% North, 20% West, 15% East.

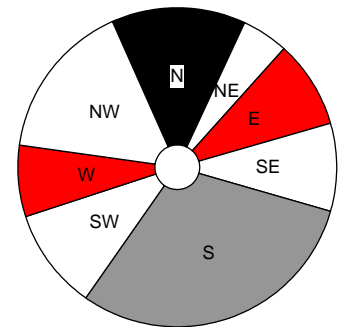


Soil Type (137 records): 49% sandy, 28% loamy, 13% peaty, 5% gravelly, 3% rocky, 2% clayey.

Soil Colour (137 records): 56% grey, 22% black, 17% brown, 4% white, 0.7% yellow, 0.7% orange.

Geology (137 records): 82% sandstone, 15% shale, 1% conglomerate, 0.7% granite.

Vegetation (138 records): 96% shrubland, 4% plantations, 0.7% grassland.



Conservation Status and Threat:

Red Data List Status: Least Concern.

Occurrence (Fynbos): 474 km² with 37% conserved and 41% lost; **Occupancy:** 99 km² with 66% conserved and 7% lost. **Fragmentation index:** 20%.

Nature Reserves (139 records): 88% in nature reserves - well conserved.

Habitat destruction (135 records): 99% extensive natural habitat, 1% islands.

Alien Invasive Species (137 records): 76% none, 19% *Pinus*, 4% Fabaceae (chiefly alien *Acacia*), 1% *Hakea*.

Alien Density (137 records): 76% alien-free,
18% sparse, 3% abundant, 4% dense.

Cultivation & Utilization:

Picking (77 records): 100% no sign of picking.

Cultivation Status: No noted cultivation.

Atlassers Notes: None.

Confusing Species: A few records of
confusion with *S. racemosa* in those
populations with hairless styles.

Records of identification queries = 15.

Records of corrected identification queries = 4.

Variation and Taxonomy: Some populations
on Paardeberg contain individuals with
hairless styles – hairy styles are a diagnostic
for this species.

Distribution: Add.

<Identification Queried: Sp Moll - Identified By
J Rourke - But This Is Way Out Of Range:
So Tere Would Be More Appropriate -
Accepted Tentatively Based On Jprs Id: Not
Found Since: Herbarium Specimen
Required (WIJ94061202); >

INCLUDEPICTURE

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MERGEFORMAT \d

Spatalla racemosa (L.) Druce 1753, 1913
Lax-stalked Spoon

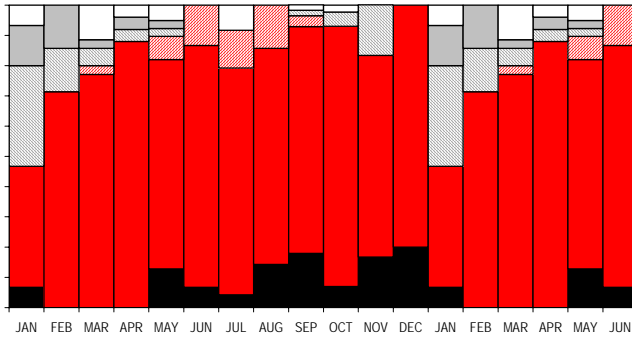
Other Common Names: Slender *Spatalla*.
Other Scientific Names: *gracilis* Salisb. ex Kn. 1809, *laxa* R.Br. 1810, *ramulosa* R.Br. 1810.

319 Records

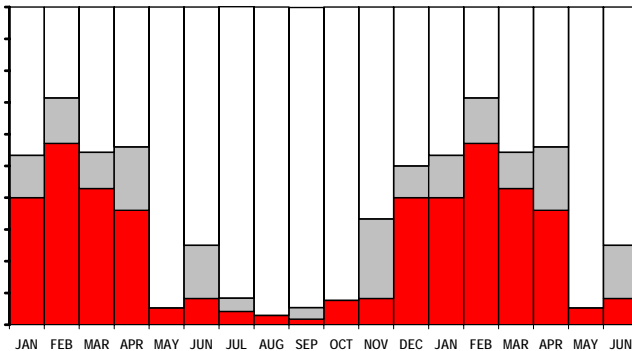
Population (313 records): 1.0% Abundant, 28% Common, 58% Frequent, 13% Rare.

Dispersion (295 records): 62% variable, 30% clumped, 5% widespread, 2% evenly distributed.

Flowering (316 records with: Jan 15, Feb 7, Mar 35, Apr 25, May 39, Jun 15, Jul 24, Aug 35, Sep 56, Oct 43, Nov 12, Dec 10): Buds not significant; Flowering from all year round; Peak Flowering from Dec; Over from Jan; Fruit and Nothing not significant. Peak levels at 100% in Jun, Aug and Nov to Dec. Historically recorded as flowering from Sep to Mar.



Growth (306 records with: Jan 15, Feb 7, Mar 35, Apr 25, May 38, Jun 12, Jul 24, Aug 34, Sep 55, Oct 39, Nov 12, Dec 10): Much from Dec to Apr; Rare from Apr and Nov; None from all year round. Peak levels at 71% in Feb.



Seedlings (161 records): Absent in 99%; more seedlings than prefire adults in 1 case. Seedlings found in Jul.

Fire Survival (12 records): 92% survived by seedlings only, 8% escaped fires in fire-safe areas.

Age to first flowering: First flowers recorded at 2 years, 50% estimated at 2-3 years, and 100% recorded at 4 years.



Height (315 records): 9% 0-0.2 m tall, 90% 0.2-1 m tall, 0.6% 1-2 m tall.

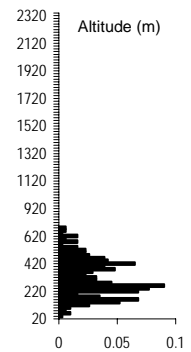
Pollinators (4 records): 75% bees or wasps, 25% beetles.

Detailed Pollinators (1 record): Solitary Bee.

Habitat:

Distance to Ocean (310 records): 85% inland - further than 2 km from coast.

Altitude (310 records): 20 - 680 m; 200_{lq} - 260_{med} - 340_{uq} m.



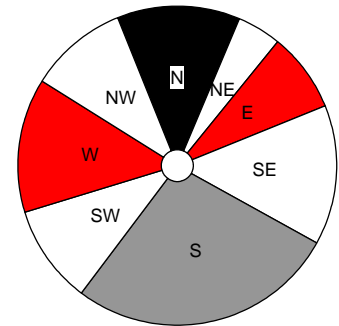
Landform (308 records): 80% deep soil, 14% shallow soil, 5% rocky outcrops, 0.3% riverine, 0.3% swamp.

Slope (308 records): 66% gentle incline, 25% steep incline, 4% hill top, 4% platform, 0.6% valley bottom.

Aspect (289 records): 40% South, 24% West, 20% North, 16% East.

Soil Type (307 records): 64% sandy, 16% loamy, 8% gravelly, 6% clayey, 4% rocky, 2% peaty.

Soil Colour (307 records): 63% grey, 21% brown, 5% orange, 4% white, 4% yellow, 3% black, 0.3% red.



Geology (296 records): 82% sandstone, 15% shale, 1% silcrete or ferricrete, 1% conglomerate, 0.7% Tertiary sands.

Vegetation (308 records): 99% shrubland, 0.6% plantations, 0.3% agricultural lands.

Conservation Status and Threat:

Red Data List Status: Near Threatened A2c.

Occurrence (Fynbos): 939 km² with 31% conserved and 34% lost; **Occupancy:** 233 km² with 30% conserved and 24% lost. **Fragmentation index:** %.

Nature Reserves (310 records): 45% in nature reserves.

Habitat destruction (305 records): 95% extensive natural habitat, 3% islands,

2% naturally linear habitats, 0.3% naturally fragmented habitats.

Alien Invasive Species (302 records):

47% *Pinus*, 22% none, 16% *Hakea*, 13% Fabaceae (chiefly alien *Acacia*), 2% Myrtaceae.

Alien Density (302 records): 22% alien-free, 62% sparse, 12% abundant, 4% dense.

Cultivation & Utilization:

Picking (223 records): 100% no sign of picking.

Cultivation Status: No noted cultivation.

Atlassers Notes:

Both *S. racemosa* and *S. curvifolia* recorded in area, but this is a long-stalked form of *S.*

racemosa - could it reflect hybridization?

(APE96012809, NGF98053103,

WIJ99102304).

Flies also seen (AGR91092101).

Confusing Species: Occasionally confused with all other members of the group (in order: *S. curvifolia*, *S. longifolia* and *S. mollis*). The solitary fruits (narrow and cylindrical) and involucre bracts (tridentate) are diagnostic.

Records of identification queries = 30

Records of corrected identification queries = 9.

Variation and Taxonomy: Populations with long-stalked flowerheads noted. One population with adpressed leaves noted (SHR93103101).

Distribution: Isolated population at Steenbras Dam. Add.

INCLUDEPICTURE

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MERGEFORMAT \d