

Aulax Berg. 1767
Featherbushes

Genus page: anything specific to go here?

Aulax cancellata (L.) Druce 1753, 1914
Channel-leaf Featherbush
Naaldblaarkanariebos

Other Common Names: Pine-leaf Aulax, *Geelyveer*.

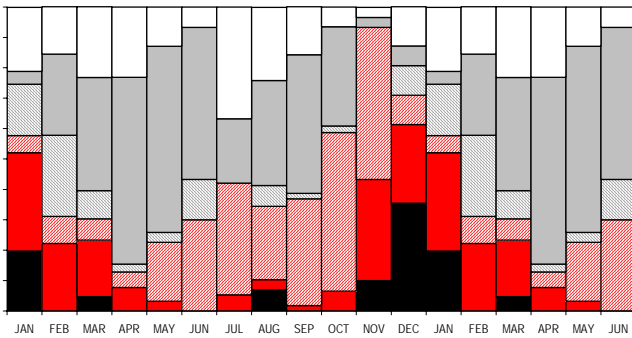
Other Scientific Names: *bracteata* Thunb. 1781, *pinifolia* Berg. 1767.

480 Records

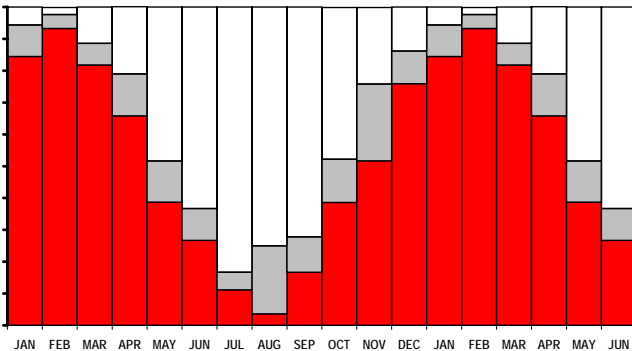
Population (473 records): 0.4% Abundant, 25% Common, 49% Frequent, 25% Rare, 0.6% Extinct.

Dispersion (424 records): 47% variable, 44% clumped, 6% widespread, 3% evenly distributed.

Flowering (471 records with: Jan 71, Feb 45, Mar 43, Apr 39, May 31, Jun 30, Jul 19, Aug 29, Sep 57, Oct 46, Nov 30, Dec 31): Buds from May to Nov; Flowering from Nov to Mar; Peak Flowering from Nov to Jan; Over from Dec to Feb; Fruit (retained) from Feb to Oct; Nothing from Dec to May 13 and Jul to Oct 7. Peak levels at 93% in Nov. Historically recorded as flowering from Nov to Feb.



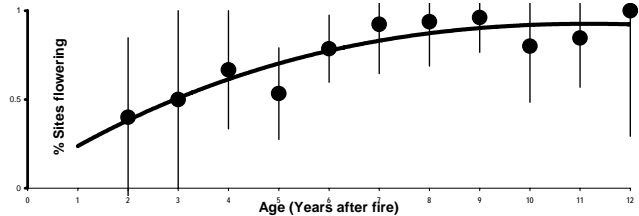
Growth (461 records with: Jan 71, Feb 45, Mar 44, Apr 38, May 31, Jun 30, Jul 18, Aug 28, Sep 54, Oct 44, Nov 29, Dec 29): Much from Sep to Jul; Rare from Aug to Jan and Apr to Jun; None from Mar to Dec. Peak levels at 98% in Feb.



Seedlings (213 records): Absent in 90%: fewer seedlings than prefire adults in 3 cases, and more in 8 cases. Seedlings found in Mar (2), Apr, May, Jun, Sep and Dec (5).

Fire Survival (48 records): 83% survived by seedlings only, 8% resprouted from underground boles, 6% eliminated from the area by fires, 2% escaped fires in fire-safe areas.

Age to first flowering: First flowers recorded at 2 years, 50% estimated at 3 years, and 100% recorded at 12 years.



Height (473 records): 6% 0-0.2 m tall, 70% 0.2-1 m tall, 21% 1-2 m tall, 3% 2-5 m tall.

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

Habitat:

Distance to Ocean (444 records): 92% inland - further than 2 km from coast.

Altitude (444 records): 20 - 1460 m; 500 *lq* - 720 *med* - 920 *uq* m.

Landform (440 records): 68% deep soil, 27% shallow soil, 3% rocky outcrops, 2% swamp, 0.7% riverine.

Slope (440 records): 55% steep incline, 33% gentle incline, 7% hill top, 3% platform, 2% cliff, 0.7% valley bottom.

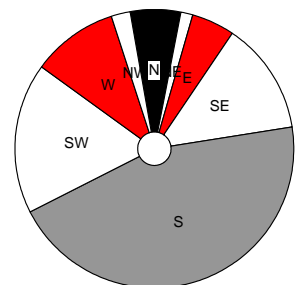
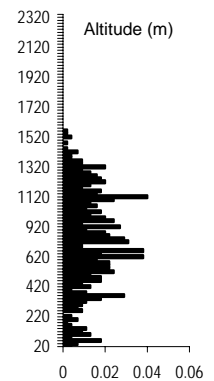
Aspect (394 records): 61% South, 21% West, 10% East, 7% North.

Soil Type (439 records): 45% sandy, 28% loamy, 17% peaty, 5% rocky, 4% gravelly, 2% clayey.

Soil Colour (439 records): 44% grey, 27% black, 23% brown, 3% orange, 2% white, 0.9% red, 0.2% yellow.

Geology (432 records): 94% sandstone, 4% shale, 0.9% granite, 0.7% conglomerate, 0.2% Tertiary sands.

Vegetation (440 records): 99% shrubland, 0.7% grassland, 0.2% thicket, 0.2% forest, 0.2% suburban.



Conservation Status and Threat:

Red Data List Status: Least Concern, but Critically Endangered A2c, B1a(ii)c(iv)+2a(ii)c(iv), C2a(ii) on the Cape Peninsula.

Occurrence (Fynbos): 11 986 km² with 29% conserved and 15% lost; **Occupancy:** 402 km² with 68% conserved and 5% lost. **Fragmentation index:** 1%.

Nature Reserves (444 records): 84% in nature reserves - well conserved.

Habitat destruction (433 records): 97% extensive natural habitat, 2% naturally linear habitats, 1% islands.

Alien Invasive Species (430 records): 64% none, 23% *Pinus*, 7% Fabaceae (chiefly alien *Acacia*), 6% *Hakea*.

Alien Density (430 records): 64% alien-free, 33% sparse, 2% abundant, 0.2% dense.

Cultivation & Utilization:

Picking (329 records): 99% no sign of picking, 0.9% severely picked, 0.3% lightly picked.

Cultivation Status: Plantings - 4 records (0.8%).

Atlassers Notes:

- These plants were removed as pines in alien clearing operations (AKS92040103); hackers mistook plants for pines and chopped them off (AWA96111201).

Silvermine population:

- Has a strange growth habit at this site being more flat and looking more wind-swept than other populations (NGFY1071401).
- First flowers at about 500 mm high (NGF96060806).
- The '99 fire came very close (100 m) to wiping out this species here: about 100 plants remain with perhaps as much as 30% of the original population destroyed. Only 2 males had flowered at the time. (NGF99071801, NGFY1071401).

Confusing Species: Primarily confused with *A. pallasia*, especially when the growth habit was not noted. Also confused with *A. umbellata*, although the leaves are quite different. A hybrid population with *A. umbellata*, was found in the Kleinmond Nature Reserve. Initial confusion was caused by the lack of a channel in the leaves, but it was found that this only occurs in herbarium specimens – live material does not display the characteristic upper channel unless desiccated.

Records of identification queries = 27.

Records of corrected identification queries = 4.

Variation and Taxonomy: The species has two forms (Rourke 1985), but this was not commented on by atlassers.

- The eastern populations (Swartberg, Rooiberg, Outéniqua and Kouga) have longer, straighter and more slender leaves.
- The western populations have shorter, broader leaves (Peninsula, Kogelberg-Hottentots Holland and Riviersonderend).

Atlassers did note the more prostrate plants of the Silvermine population, and a very tall form on the south slopes of the Langeberg.

Distribution: Add.

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Aulax pallasia Stapf 1912
Needle-leaf Featherbush
Dunbeentjebos

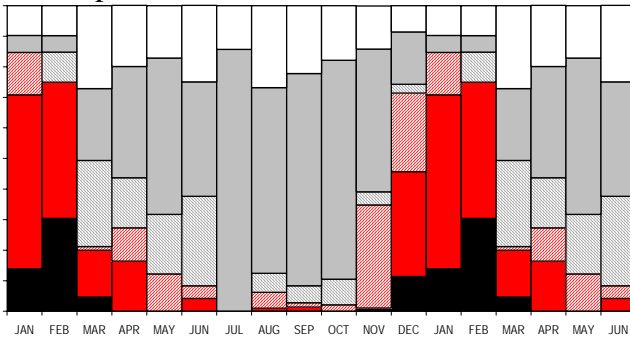
Other Common Names: *Kersbos*,
Naaldblaarkanariebos.
Other Scientific Names: *None*.

799 Records

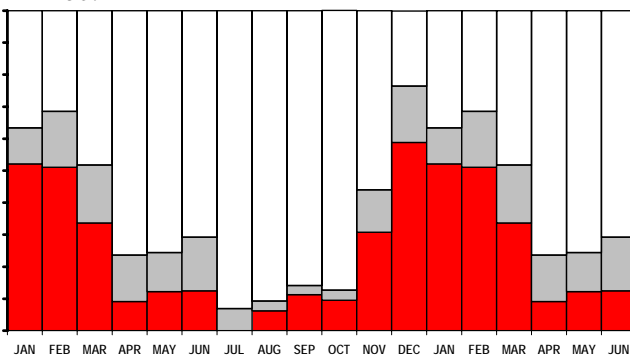
Population (790 records): 7% Common,
49% Frequent, 43% Rare.

Dispersion (656 records): 56% clumped,
43% variable, 0.8% evenly distributed,
0.6% widespread.

Flowering (788 records with: Jan 72, Feb 92,
Mar 85, Apr 55, May 41, Jun 24, Jul 28, Aug
97, Sep 72, Oct 95, Nov 92, Dec 35): Buds
from Nov to Jan and Apr to May; Flowering
from Dec to Apr; Peak Flowering from Dec
to Feb; Over from Feb to Jun; Fruit
(retained) from Mar to Dec; Nothing from
Jan to Nov. Peak levels at 85% in Jan-Feb.
Historically recorded as flowering from Jan
to Apr.



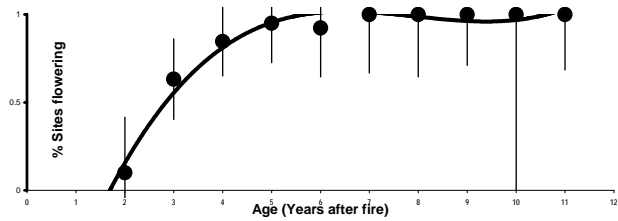
Growth (783 records with: Jan 71, Feb 92, Mar
83, Apr 55, May 41, Jun 24, Jul 29, Aug 97,
Sep 71, Oct 95, Nov 91, Dec 34): Much from
Nov to Mar; Rare from Nov to Jun; None
from all year round. Peak levels at 76% in
Dec.



Seedlings (320 records): Absent in 98%: fewer
seedlings than prefire adults in 3 cases.
Seedlings found in Jan, Mar and Oct.

Fire Survival (95 records): 96% resprouted
from underground boles, 2% survived by
seedlings only, 2% escaped fires in fire-safe
areas.

Age to first flowering: A resprouter, so mostly
encountered as mature plants. First flowers
recorded at 2 years, 50% estimated at 3
years, and 100% recorded at 7 years.



Height (793 records): 0.6% 0-0.2 m tall,
36% 0.2-1 m tall, 54% 1-2 m tall, 9% 2-5 m
tall, 0.1% taller than 5 m.

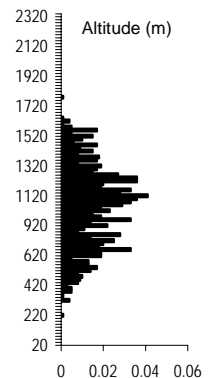
Pollinators : No data.

Detailed Pollinators: No additional data.

Habitat:

Distance to Ocean (785
records): 100% inland -
further than 2 km from
coast.

Altitude (786 records): 200 -
1680 m; 720 *lq* - 980 *med* -
1120 *uq*m.



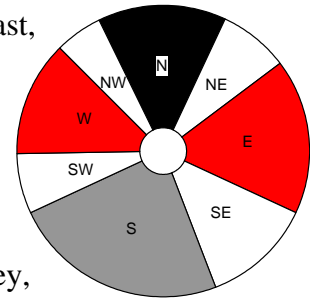
Landform (782 records):

77% deep soil,
20% shallow soil,
3% rocky outcrops,
0.3% swamp.

Slope (780 records): 50% gentle incline,
35% steep incline, 7% platform, 5% hill top,
2% valley bottom, 0.6% cliff.

Aspect (697 records):

33% South, 28% East,
21% North,
19% West.



Soil Type (776

records):
46% sandy,
29% loamy,
15% gravelly,
6% rocky, 4% clayey,
0.9% peaty.

Soil Colour (778 records): 52% brown,
34% grey, 4% white, 4% yellow, 3% orange,
2% red, 1% black.

Geology (773 records): 72% sandstone,
21% shale, 5% granite, 1% silcrete or
ferricrete, 0.1% Tertiary sands.

Vegetation (783 records): 98% shrubland,
0.6% plantations, 0.5% grassland,
0.4% thicket, 0.1% agricultural lands.

Conservation Status and Threat:

Red Data List Status: Near Threatened A4c.

Occurrence (Fynbos): 11 820 km² with 19%
conserved and 16% lost; Occupancy:
981 km² with 70% conserved and 6% lost.
Fragmentation index: 4%.

Nature Reserves (786 records): 31% in nature
reserves.

Habitat destruction (777 records):
95% extensive natural habitat, 2% islands,

2% naturally linear habitats, 0.8% naturally fragmented habitats.

Alien Invasive Species (766 records):

53% none, 27% *Pinus*, 18% *Hakea*, 2% Fabaceae (chiefly alien *Acacia*), 0.4% Myrtaceae, 0.4% other aliens.

Alien Density (766 records): 53% alien-free, 41% sparse, 5% abundant, 0.9% dense, 0.4% impenetrable.

Cultivation & Utilization:

Picking (543 records): 99% no sign of picking, 0.6% lightly picked.

Cultivation Status: No noted cultivation.

Atlassers Notes:

- At Kleindrakenstein: very broad leaves - definitely a resprouter but with *A. umbellata* size leaves (AGR95051402).
- Only males seen (AGR96081009, APE92101711, APE92101802, ASP93061311, MHGY0031202, VJK93041802,

VJK93093009, WMPY1020401, WMPY1020402); Mostly male plants (WMPY1020306).

Confusing Species: Often confused with *A. cancellata* by those not observing or noting the growth habit.

Records of identification queries = 21.

Records of corrected identification queries = 12.

Variation and Taxonomy: No recorded variation in the literature. Atlassers found a Kleindrakenstein population with very broad leaves.

Distribution: Add.

INCLUDEPICTURE

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Aulax umbellata (Thunb.) R.Br. 1781, 1810

Broad-leaf Featherbush

Veerkanariebos

Other Common Names: Featherduster, Fluffy Featherbush, Widow wail-leaf Aulax, *Christmasblom*, *Sekelbos*.

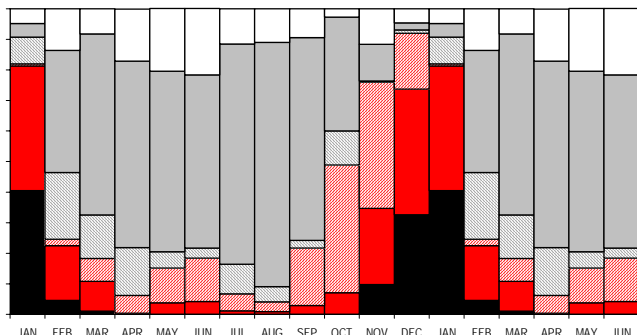
Other Scientific Names: *aulacea* (Thunb.) 1781, *cneorifolia* Salisb. ex Knight 1809.

2723 Records

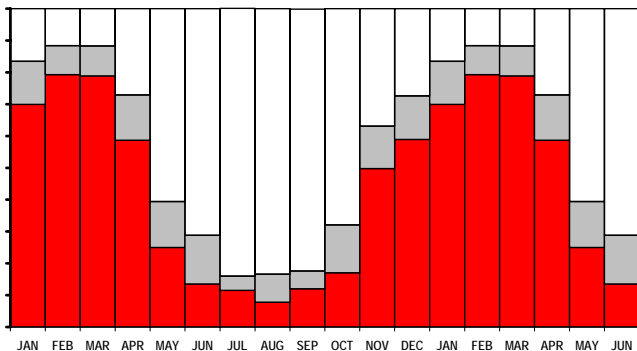
Population (2688 records): 2% Abundant, 43% Common, 47% Frequent, 7% Rare, 0.1% Extinct.

Dispersion (2494 records): 77% variable, 16% clumped, 6% widespread, 0.9% evenly distributed.

Flowering (2598 records with: Jan 289, Feb 280, Mar 268, Apr 223, May 132, Jun 120, Jul 165, Aug 219, Sep 277, Oct 225, Nov 225, Dec 175): Buds from Sep to Dec; Flowering from Nov to Jan; Peak Flowering from Dec to Jan; Over from Feb to Apr; Fruit (retained) from Feb to Oct 37; Nothing from Apr to Jun. Peak levels at 93% in Dec. Historically recorded as flowering from Nov to Feb.



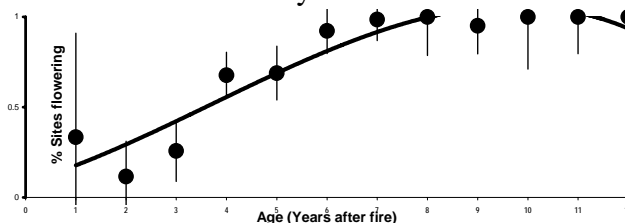
Growth (2539 records with: Jan 279, Feb 275, Mar 266, Apr 218, May 132, Jun 111, Jul 157, Aug 217, Sep 266, Oct 218, Nov 225, Dec 175): Much from Nov to Jan; Rare never prominent; None from May to Nov. Peak levels at 88% in Feb-Mar.



Seedlings (1172 records): Absent in 90%: fewer seedlings than prefire adults in 18 cases, and more in 42 cases. Seedlings found in Jan (13), Feb (6), Mar (2), Apr (2), May (4), Jun, Jul (4), Aug (11), Sep (14), Oct, Nov and Dec.

Fire Survival (135 records): 84% survived by seedlings only, 10% eliminated from the area by fires, 5% escaped fires in fire-safe areas.

Age to first flowering: First flowers recorded at 1 years, 50% estimated at 3 to 4 years, and 100% recorded at 8 years.



Height (2598 records): 5% 0-0.2 m tall, 52% 0.2-1 m tall, 41% 1-2 m tall, 3% 2-5 m tall.

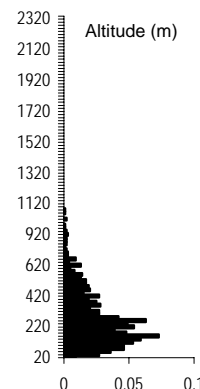
Pollinators (12 records): 50% bees or wasps, 42% beetles, 8% birds.

Detailed Pollinators (5 records): Solitary Bee (2), Scarab Beetle, Monkey Beetle, Honey Bee.

Habitat:

Distance to Ocean (2624 records): 84% inland - further than 2 km from coast.

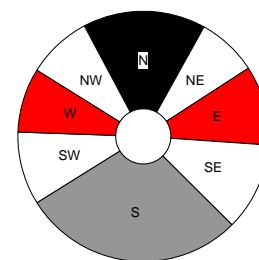
Altitude (2624 records): 20 - 1020 m; 120 *lq* - 220 *med* - 280 *uq*m.



Landform (2520 records): 83% deep soil, 13% shallow soil, 3% rocky outcrops, 0.3% riverine, 0.2% swamp, 0.0% lake edge.

Slope (2518 records): 55% gentle incline, 25% steep incline, 10% platform, 7% hill top, 2% valley bottom, 0.3% cliff, 0.1% dunes.

Aspect (2184 records): 40% South, 24% North, 19% East, 17% West.



Soil Type (2519 records): 64% sandy, 20% loamy, 7% gravelly, 4% clayey, 3% rocky, 2% peaty.

Soil Colour (2513 records): 63% grey, 19% brown, 8% white, 6% black, 2% orange, 2% yellow, 0.4% red.

Geology (2492 records): 81% sandstone, 8% shale, 5% Tertiary sands, 3% silcrete or ferricrete, 2% limestone, 0.3% conglomerate, 0.0% granite.

Vegetation (2613 records): 99% shrubland, 0.3% thicket, 0.3% plantations, 0.2% agricultural lands, 0.1% grassland, 0.0% woodland.

Conservation Status and Threat:

Red Data List Status: Near Threatened

A2c+4c.

Occurrence (Fynbos): 5 086 km² with 18% conserved and 27% lost; Occupancy: 1 526 km² with 24% conserved and 24% lost. Fragmentation index: 13%.

Nature Reserves (2624 records): 45% in nature reserves.

Habitat destruction (2467 records): 93% extensive natural habitat, 4% islands, 2% naturally linear habitats, 1.0% road verges, 0.4% naturally fragmented habitats, 0.2% corridors, 0.1% patches.

Alien Invasive Species (2463 records): 33% none, 31% *Pinus*, 26% Fabaceae (chiefly alien *Acacia*), 7% *Hakea*, 4% Myrtaceae, 0.1% other aliens.

Alien Density (2459 records): 33% alien-free, 52% sparse, 11% abundant, 4% dense, 0.2% impenetrable.

Cultivation & Utilization:

Picking (1776 records): 99% no sign of picking, 0.9% lightly picked, 0.2% severely picked.

Cultivation Status: Plantings - 7 records (0.3%), Augmentations - 2 records (0.07%), Escapes - 1 records (0.04%).

Witch's Broom Infestation: 2 records (0.07%).

Atlassers Notes:

- Many dead plants (SMRY0072006); Lots of dead in patches - apparently wetter areas that appear to have dried out (AGRY0011410).
- Picking probably done by buck? (AGR91101403).
- Land strip ploughed - this part planted densely with *A. umbellata* (SMRY0052405).
- Only males (AGR94082803, AGR95043011).
- Solitary Bees - lots on males (AGR97122009); Honeybees - very active lots of pollen on hind legs (JCA93012303); Monkey Beetles were on the male plants only (NGF97112915).

Confusing Species: Confused with both *A. pallasia* (rarely) and more frequently with *A. cancellata*. However, many of the latter queries were from the hybrid area in the Kleinmond Nature Reserve.

Records of identification queries = 23.

Records of corrected identification queries = 9.

Variation and Taxonomy: Rourke (1987) noted that leaves were variable and several forms existed. The two he noted were:

- A narrow-leaved form with straight blades from Sir Lowry's Pass to Kleinmond, and,
- A broader-leaved form with prominently incurved blades, associated with limestone in the south and east, but not growing on them.

Atlassers noted that species from neutral soils had more curly leaves than those from sandstone-derived soils.

Distribution: Add.

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