

A Remarkable *Senecio* Hybrid.

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PLATES 28-29.

Senecio southlandicus is a herb of tussock-grassland in the South Otago Botanical District, and *S. Hectori* is a large shrub of the forest in the North-western South Island Botanical District. The two therefore do not meet in nature, and considering their great disparity in habitat requirements and growth-forms one would hardly have expected that they would hybridize when brought together. But two *Senecio* plants that appeared spontaneously at Fern Tree House, Dunedin, show clearly by their characters that they arose from the crossing of the two species mentioned. In this garden plants of *S. southlandicus* were growing on a rockery in close proximity to a shrubbery containing a large specimen of *S. Hectori*. In 1915 there appeared under *S. Hectori* seedlings that were clearly referable to *Senecio*, but of a form hitherto unknown. One of these was transplanted to a dry place, the other into a rather damp, shady spot. As they grew up both showed an intermingling of the characters of the two parents, though this was more marked in the plant in the shady position. It is this plant that is here further described.

The plant is now (May, 1928) some 71 cm. tall, and is of bushy habit. From a main stem 23 cm. high and 25 mm. diam. are given off a number of more or less decumbent branches, semi-woody towards the bases, and clothed with rather large leaves. These bear at the bases of the blades pinnules showing the presence of *Hectori* blood. The inflorescences are intermediate in degree of development between those of the two parents. Seed is set, but so far we have failed to germinate any. The plant grows readily from cuttings, and we have established several for further observation and report. It is obvious that the occurrence of hybrids between such dissimilar parents is of considerable importance. Further details are given in the following table:

Characters.	<i>S. southlandicus.</i>	Hybrid.	<i>S. Hectori.</i>
Growth-form.	<i>Herb</i> ; with rosulate radical lvs. and stout rootstock	<i>Semi-woody plant</i> ; with numerous ascending branches	<i>Tall shrub</i> ; with numerous stout, spreading branches
Leaves: petioles	2 to 12 cm., glandular pilose	5 to 18 cm., glabrate	2 to 3 cm., pilose
blades	6 to 11 cm., oblong to sub-rotund	12 to 22 cm., elliptic-oblong	15 to 30 cm., oblong-lanceolate
tips	obtuse or rounded	obtuse to subacute	acute
bases	rounded, cordate, or truncate <i>lacking pinnae</i>	somewhat rounded to truncate <i>with several leaf-like pinnae</i>	gradually narrowed <i>with several narrow pinnae</i>
margins	entire, or with short distant teeth	with frequent teeth	with numerous acute teeth
upper-surface	glabrate or slightly silky	glabrate, silky when young	scaberulous
lower-surface	glabrate or slightly silky, often purplish	white tomentose when young, glabrate and purplish when old	clothed with white cottony tomentum
Inflorescences: scapes	sparingly branched, bearing 5 to 12 heads only	much-branched, with spread of up to 20 cm. across	very much branched, with spread of up to 30 cm. across
bracts	linear-oblong	oblong-lanceolate	linear-lanceolate
involucral bracts	pilose; linear, obtuse	pilose; linear-oblong; subacute	pubescent; lanceolate, acute
Heads	1.3 to 4 cm. diam.	3 cm. diam.	2.5 to 5 cm. diam.
Ray-florets	<i>luteous</i>	<i>primrose yellow</i>	<i>white</i>
achenes	linear, glabrous	linear, glabrous	linear, glabrous
pappus hairs	slender, minutely scabrid	slender, minutely scabrid	rigid, scabrid.



FIG. 1.—Left—Leaf of Hybrid.
Middle—Leaf of *S. southlandicus*.
Right—Leaf of *S. Hectori*.



FIG. 2.—Hybrid *Senecio*, showing habit.



FIG. 3.—Hybrid *Senecio*, showing inflorescence.