

Opuntia basilaris var. *heilii*

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A brief review of what is possibly the hardiest variety of *Opuntia basilaris*. All photos by the author.

Usually, I write about cacti in habitat, but will make an exception for this charming variety of beavertail cactus that grows outdoors year-round in Ontario, Canada, less than five metres from where mammalian beavers, the big rodent *Castor canadensis*, swim by every non-frozen day.

The type variety of *Opuntia basilaris* has long been a favourite of mine, but does not do well through Canadian winters, at least not in my garden in Kawartha Highlands Provincial Park, where there is typically a week of consecutive early mornings below -30°C (-22°F). A few cuttings of var. *basilaris* survived a winter or two, but then finally died without growing. Therefore, I eventually tried *O. basilaris* var. *heilii*, which grows in some of the harshest climates on earth, in central Utah, often with few or no other plant species (Woodruff, 2012) and where winter temperatures often plummet as low as in eastern

Ontario, but without the thermal insulation of snow cover. Dorde Woodruff (2012) and Tony Frates & Woodruff (2019) wrote short papers on var. *heilii*, which was named for the cactus botanist Ken Heil at San Juan College, NM (Welsh & Neese, 1983). There is nothing I can add to the two superb papers by Woodruff and Frates other than to say this is a lovely taxon in cultivation, probably perfect for winter-hardy gardens, although I would like to see it survive a few more Canadian winters before unwaveringly vouching for its hardiness.

Opuntia basilaris var. *heilii* does not quite have the charm of the type variety. *O. basilaris* var. *heilii* is a smaller plant, with smaller pads, with many fewer areoles per pad, with pads that do not remain erect in winter, and with not quite as vibrant flower colour. There is almost nothing in the world as spectacular as driving or hiking through the Mojave Desert when var.

basilaris is in full flower (Fig. 1). But var. *heilii* has its own charms. It is a more compact plant than var. *basilaris* and var. *longiareolata*. Some clones of var. *heilii* are stunning in winter, with dark pink coloured pads with deep wrinkles (Fig. 2). One of my favourites is a diminutive thin new cutting that did not grow for several months, but then during the hottest and driest summer we have ever witnessed in Ontario – no rain for weeks and daily highs above $+30^{\circ}\text{C}$ ($+86^{\circ}\text{F}$) – clearly must have grown roots and had its shoot balloon up, albeit with no obvious source of water (Fig. 3).



Fig. 1 *Opuntia basilaris* var. *basilaris* between Bouse and Quartzite, La Paz County, Arizona (5 March 2016)



Fig. 2 *Opuntia basilaris* var. *heilii* at its winter best, in cultivation (16 December 2019)

while others look distinct, with var. *longiareolata* always having a tapered (beaver-tail-shaped) pad but var. *heilii* usually has a much rounder proximal end to each pad. Note that *Flora of North America* (Pinkava, 2003) considers *Opuntia heilii* [oddly not as *Opuntia basilaris* var. *heilii*] to be a synonym of *O. basilaris* var. *longiareolata*. Also note that morphological variation could possibly be due to hybridisation and/or introgression (Gorelick, 2006; Frates & Woodruff, 2019). Regardless, *O. basilaris* var.

heilii is a plant worth buying or trading for, especially if you live in a cold climate and can get a hold of multiple clones.

LITERATURE CITED:

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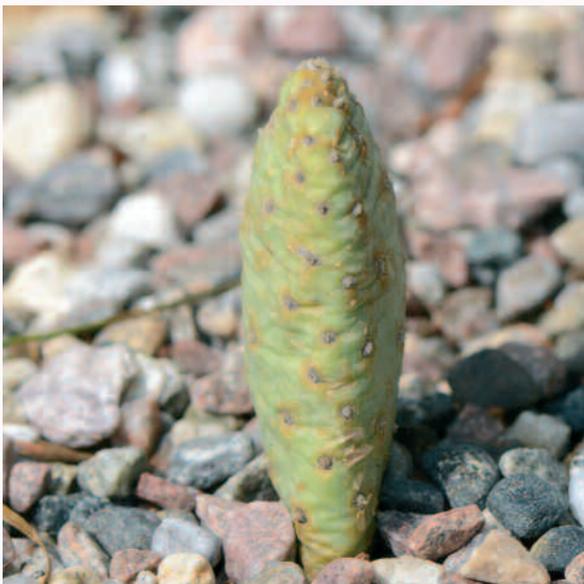


Fig. 3 Newly rooted *Opuntia basilaris* var. *heilii* cutting plumping up in a hot and extremely dry summer in cultivation (5 July 2020). With the right camera angle, in this case an edge-on view of a pad, even an ordinary cactus can sometimes look peculiar

Although *O. basilaris* var. *heilii* is endemic to a small geographic habitat (Frates & Woodruff, 2019) and seemingly rare in cultivation, this is a taxon worth growing if just for the variation. Some pads wrinkle far more than others in winter. Some turn vibrant rose-pink (Fig. 2) or even purple in winter (bottom left figure on page 11 of Woodruff, 2012), while others remain greyish-green (Fig. 4). Some plants superficially resemble *O. basilaris* var. *longiareolata*,



Fig. 4 *Opuntia basilaris* var. *heilii* in winter – notice the wrinkled pad – but retaining its summer greyish-green epidermis, in cultivation (10 January 2020)