Darlingtonia californica (Sarraceniaceae) and *Sarracenia purpurea* (Sarraceniaceae)—profiles of a refugee and a recluse in British Columbia

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Darlingtonia californica (Torrey) and *Sarracenia purpurea* subsp. *purpurea* (L.) are both hardy pitcher plants commonly found in carnivorous plant enthusiasts' collections. *Darlingtonia* is restricted to suitable habitats in a range extending from Oregon to northern California, but it is capable of surviving along the southwestern coast of British Columbia (B.C.), where the climate is virtually identical to its native range. *Sarracenia purpurea* subsp. *purpurea* is cold tolerant and could grow in any suitable location within B.C. However, only *Sarracenia purpurea* subsp. *purpurea* is naturally found in B.C., and even then only within a restricted area. Further discussions of both genera, as they occur in B.C., are presented below.

So how did this all begin, or rather, where did I come in? Adolf Ceska, a Victoria (B.C.) botanist and editor of Botanical Electronic News (BEN) posted a question to the carnivorous plant listserv e-mail discussion group asking if anyone knew whether the *Darlingtonia* found in Pacific Rim National Park, Vancouver Island, B.C. was a natural, disjunct population, or whether it was introduced. I casually replied that I knew it was introduced, as I knew the person who introduced the seed to this bog. The next thing I knew, Adolf was asking me for an article for BEN and Barry Rice was asking me for an article for Carnivorous Plant Newsletter!

The saga began in 1999, when a carnivorous plant enthusiast[1] from Vancouver went on vacation to Oregon and collected a few ripe *Darlingtonia* seed pods. On a subsequent visit to the Pacific Rim National Park's Shorepine Bog[2], he randomly distributed the seeds as he walked along the boardwalk. The enthusiast told me about the location, but attempts I made at locating the plants in early-summer 2001 were unsuccessful, likely due to the small size of the plants, and a spouse who was more interested in the ocean than a mosquito-infested bog (can you imagine?).

So, it was with a bit of surprise that I read Adolf's question regarding the *Darlingtonia*. In subsequent conversations with other botanists and naturalists, Matt Fairbarns provided me with photos of the plants he had taken in 2004 (see Figures 1 and 2; note the presence of *Drosera rotundifolia* for size reference). The small size of the plants indicated that these were indeed the result of the seed spread in 1999. Matt Fairbarns indicated that the leaves were small compared to natural populations in Oregon, and that the plants had not flowered in 2003. This is not surprising, given that *Darlingtonia* can take more than six years to reach flowering size, and even after that stage plants continue to increase in pitcher size for many years. Although some think that this population may eventually fail, I believe that it is well-established, and if left undisturbed, will persist into the future. Currently, there are four known patches of *Darlingtonia*, but others may easily be hidden among the native vegetation in the bog.

While some people may think that the introduced population of *Darlingtonia* is a natural occurrence in B.C., in fact the only native carnivorous pitcher plant is the common *Sarracenia purpurea* subsp. *purpurea*. This species is widespread across much of Canada and is even the provincial flower of Newfoundland. The Rocky Mountains act as an effective barrier to the

[1]Who wishes to remain anonymous.

[2]At the request of Park officials, I have not revealed the exact location of the plants due to fears that people may leave the boardwalk to search for these plants.

Figure 1: Juvenile *Darlingtonia californica* in British Columbia. Photograph by Matt Fairbarns.

Figure 2: Tiny pitchers of *Darlingtonia californica* in British Columbia. Photograph by Matt Fairbarns.

pitcher plant's spread westward, but a large portion of northeastern B.C. is east of the Rockies. It is here that *Sarracenia purpurea* subsp. *purpurea* has been detected.

A single location for the genus in B.C. was reported by Krajina (1968), and was given as being near Jackfish Creek, south of Fort Nelson. (I repeat this locational data here for two reasons; first, the location was reported in Krajina's paper and second, the location is difficult to access and is now an ecological reserve). Numerous plants were reported as occurring in the location. Lamb (1989) noted a second location existed near the Fort Nelson location. Recent searches of the University of British Columbia (UBC) herbarium records and of the scientific literature have not revealed any new locations. Thus, it appears that these two populations are disjunct from the rest of the range of *Sarracenia purpurea*.

A single plant from the Krajina population was collected sometime in the past (perhaps in the early 1980s) and introduced into cultivation. At one point I was fortunate enough to obtain a division of this plant, but it was not as robust as some of my other *Sarracenia purpurea* subsp. *purpurea*. The one time it produced a flower stalk, the flower was consumed by a greedy slug before opening, though it appeared to be the typical dark red flower.

These plants still pose many unanswered questions. Why does *S. purpurea* subsp. *purpurea* apparently only occur in a very restricted area even though there is suitable habitat in many other locations in northeastern B.C.? Why is *Darlingtonia* naturally restricted to Oregon and northern California, when the climates in the southern coastal region of B.C. and the west coast of Washington are so similar and can support populations of *Darlingtonia*? (There are even the occasional serpentine seeps with *Pinguicula* in B.C., two excellent indicators for *Darlingtonia* in California!) Things to mull over in a mosquito infested bog.

References:

Krajina, V.J. 1968. Sarraceniaceae, a new family for British Columbia. Syesis, 1: 121-124.
Lamb, R. 1989. *Sarracenia purpurea* in Western Canada. Carniv. Pl. Newslett. 18. 7-8.

Board Member Elections

The end of this year will mark the end of terms of office for four ICPS board members: Carl Mazur (President), Chris Teichreb, Steve LaWarre, and Richard Myers. The other board members, as well as all the additional volunteers responsible for operating the ICPS, extend their thanks to these officers for the work they have done during their terms of office.

The four officers facing the ends of their terms have not yet indicated if they are interested in running for another term. In any event, all members of the ICPS are encouraged to run for a board position in the ICPS. If you would like to participate in the workings of the ICPS, please email a 250 word election statement to Barry Rice (contact information is on the inside cover of Carnivorous Plant Newsletter). Your election statements must be received by 1 August, 2006. In your statement, you may wish to note your experience, why you want to run for office, and what you wish to accomplish. Your statements will be printed in the September issue.

The ICPS is a growing, active organization. In order to participate as a board member, email access is essential. Furthermore, board members are expected to work hard! So while we welcome and encourage your interest as a board member, remember that it is more than a vanity post! Consider running for office—your energy is appreciated and needed!

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Front Cover: *Darlingtonia californica* and *Pinguicula macroceras* subsp. *nortensis* in California. Read about *Darlingtonia* in Canada on page 36. Photograph by B. Rice.

Back Cover: The white-petalled taxon of *Drosera microphylla* in the wild. Note the vibrant red colouration of the plants. The plants are growing in moss-covered skeletal soil over granite, with *Borya* sp. and *D. glanduligera*. Note the white petals of the *D. microphylla* flowers are visible in bud, but no flowers were open that day due to cool and cloudy conditions. Photograph by Robert Gibson. Article on page 39.

Carnivorous Plant Newsletter is dedicated to spreading knowledge and news related to carnivorous plants. Reader contributions are essential for this mission to be successful. Do not hesitate to contact the editors with information about your plants, conservation projects, field trips, or noteworthy events. Contributors should review the "Instructions to Authors" printed in the March issue of each year. Advertisers should contact the editors.Views expressed in this publication are those of the authors, not the editorial staff.

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