

## Peripheral Vision as an Adjunct to Rigor

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Over recent decades at Glacier Bay, there has been increasing emphasis on rigor in the selection and implementation of studies. I do not presume to argue against the value of statistical validity and reproducibility; however, few things in this world are entirely beneficial. I will suggest that several characteristics of modern research as practiced at Glacier Bay have problematic consequences. Here are those characteristics.

- Rigor requires focus. Pursuit of enough, and good enough data encourages narrowing the scope of the research question.
- Rigor costs time and money. In-house funding has been lavish of late, but that is coming to an end. Independent research has almost died on the vine.
- Modern techniques often reduce the interaction between researcher and environment. Today one sees a lot of quick trips up the bay, monitoring of electronic signals in the wheelhouse, and long hours of data reduction in the office.
- Many important subjects resist rigorous treatment. We will know a lot about campsite vegetation, but god help wolverines...

Taken in sum, these characteristics result in deep but narrow views of the world. If we analogize the Glacier Bay ecosystem to a broad-band spectrogram, modern research brightly illuminates a small number of spectral bands at the cost of leaving large segments of the spectrogram in darkness.

Happily, this problem can be at least partially mitigated with little or no loss to the core value of research. Here are some thoughts on a strategy for illuminating the gaps between studies, mostly stolen from others, that may merit consideration.

- Encourage investigators to keep and report on phenomena outside their study objectives but within their expertise. In the highly professional U.S. Geological Survey paper (1963) by Darwin Rossman (the last non-helicoptered geologist according to Dave Brew) are several pages giving his observations on wildlife, remnants of human endeavor and hiking conditions that have increasing value with time.

- Create a conducive environment for interdisciplinary work and for linking complementary studies. In 1965, Dick Goldthwait assembled a team of geologists and biologists to look at Muir Inlet from a number of standpoints. The resulting publication (1966) provides the best paradigm for multidisciplinary work in the park that I know of.
- Encourage long-term research. It generates seasoned observers capable of making many sorts of observations in a contextual fashion.
- Encourage the National Park Service and U.S. Geological Survey field staff to keep personal journals of observations. The former seasonal ranger, Ole Wik, not only kept a journal but on his own time researched the old literature on birds of the area and then wrote “The Birds of Glacier Bay National Monument” (1967). This remains the only work other than checklists that covers the entire gamut of bird observations in the park.
- Allow for backcountry sabbaticals. This holds much promise as a tool for re-linking National Park Service staff to the area they are managing, and for producing observations on potential “mine canaries” that we might be overlooking.
- Develop a system for guiding, accumulating and reporting ancillary observations. This need overarches all the above; without it, they will probably remain just notes buried in notebooks or files.

These ideas in sum approach what I mean by peripheral vision, but there is a final, more elusive element that one senses in the joy we all feel when listening to one another’s results: the investment of heart—dare I say love of place—that always arises when any group I’ve ever been in talks about Glacier Bay. This feeling can unite Tlingit resident with Caucasian fisherman with researchers with park managers with tourists. This is the deep ecology of place, which allows us all to sense what we cannot measure, and which leads us to give back to Glacier Bay what it has so unstintingly given us. Anything that increases this is a good thing.

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## References

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