



Young Scientists Make the Best Stewards at Kandalakshsky Zapovednik

by Aleksandra Goryashko

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Only within the last decade in Russia, terms such as “environmental education” and “raising public awareness” have become part of the operating lingo in Russia’s strictly protected areas, the Zapovedniks. Indeed, there has been a boom in the creation of new environmental educational departments and programs at Zapovedniks throughout Russia. But, at Kandalakshsky Zapovednik, environmental education and awareness are hardly new phenomena. As early as the post-World War II years, children became an integral part of our work. Today, we can celebrate a nearly 50-year long tradition of environmental education.

Certain aspects of Kandalakshsky Zapovednik’s educational program distinguish it from other, perhaps more grassroots-type efforts. To begin, we only accept into our programs those children who intend to undertake serious scientific study at the Zapovednik. We have taken this stance partly out of necessity, because we simply do not have the human and financial resources to support all potential visitors to the Zapovednik. But we also believe that nothing is more effective in environmental education than doing meaningful, practical work. Expecting children to engage in serious work, as opposed to playing games, for instance, confers many benefits: they retain more

information, develop practical research skills, hone their abilities to process scientific data, and by doing so, cultivate a genuine environmental awareness. Children are extremely sensitive to insincerity and whatever their educational background can quite easily discern the caliber of work assigned to them. The young people participating in our program—most of whom are from urban environments—wish to be entrusted with responsibilities, something they lack in their daily lives.

The Kandalakshsky Zapovednik program gives preference to long-term collaboration over one-time visits. Fieldwork done by the same people and groups over several seasons is greatly advantageous, both for the Zapovednik and for those in the field. The Zapovednik saves precious

time during the busy field season by not having to brief newcomers on the essential procedures and rules of conduct in the Zapovednik. And importantly for science and conservation, the long-term research significantly increases the value and information level of collected data. Additionally, the continuity with a project teaches young researchers how to process voluminous field data. It also allows them to better conceptualize changing patterns of the natural world. With a solid scientific base, they can make discoveries for themselves as well as for the entire scientific community. It is amazing to observe how young peoples’ skill level increases with each passing summer and how they begin to approach their work with professionalism.

Another substantial argument in favor of long-term research is the deep inner connection to a certain place experienced after repeated visits. This place becomes “one’s own” and as such evokes rapt attention, awareness, care, and even fear. These traits are crucial for

living in nature, especially in the current Zapovednik conditions. The young people who return to our Zapovednik can, for instance, see the birds that they ringed last season arrive at the Zapovednik to nest, or the green area in the forest where they helped to extinguish a fire last year.

The best advocates of summer research at Kandalakshsky are the participants themselves. The overwhelming majority of the kids who have already worked in the Zapovednik at least one time opt to return without a moment’s hesitation. They unanimously prefer the hardships of



The common murre (*Uria aalge*) makes up an important part of Kandalakshsky’s seabird colonies. Photo by Yu. Krasnov



Scientific research is an integral part of Kandalakshsky's work with young people. Photo by N. Maleshin

expedition life to a "relaxing" summer vacation for many reasons. First, they expand their knowledge of biology—this is clear. It is also an excellent way to become acquainted with the rigors of field work. Field work in the Zapovednik also teaches kids about themselves. Life and work in the Zapovednik—and all of the accompanying responsibility—provide grounds for building a sense of self-worth and fulfilling one's potential. Moreover, being and working in the Zapovednik is formative in shaping a young person's spiritual side.

This long-term program has been enormously beneficial for the Zapovednik. Since the program began, more than 5,000 students and children have helped to fulfill Zapovednik's work annually, such as bird ringing and the mapping of nests. They have contributed a substantial share to the Zapovednik's *Letopis Prirody* (*Chronicles of Nature*) volumes. The extra hands each summer alleviate our scientists' busy work, which is often scattered among several island sites.

Kandalakshsky's long-standing partnership with the Laboratory of Marine Benthos at the St. Petersburg City Palace of Youth Creativity is a model example of our cooperation with young people. Children from this laboratory, directed by Evgeny A. Ninburg, were the first to study benthos life in the White Sea. The length, quality, and effectiveness of their research are impressive. Today, the annotated list of benthos in Kandalakshsky Zapovednik, containing around 550 animal species, is the most thorough in the region. Moreover, respected publications, such as *Macrozoobenthos of Kandalakshsky Gulf* and the series *Flora and Fauna of Russia's Zapovedniks* (2000 edition), contain the long-term research results presented by young people from this laboratory.

Another less obvious but perhaps more significant advantage of joint work with children is the opportunity to take a critical and reflective look at what we have been doing in the Zapovednik. For instance, we have unexpectedly discovered many ways to work more precisely

and efficiently after preparing introductory and descriptive materials for kids prior to their arrival at the Zapovednik. Furthermore, we have experienced how interacting with young people can help ward off the apathy and fatigue that creep up upon even the best Zapovednik specialists and enthusiasts trying to survive in an extremely difficult period.

We hope that by placing such strong emphasis on environmental education today through sound scientific preparation, we can create a better future for young people and the Zapovednik system tomorrow. Having helped raise a generation with an understanding of the natural world, we won't need to prove to them the merits of its protection when they are adults—it will already be clear.

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