

Introduction

by Linda Silka

We are pleased to bring you this issue on citizen science in Maine. Citizen science is rapidly growing around the world, and Maine is a leader in this expanding approach to science. As you will see from the diverse articles included in this issue, citizen science is advancing the study of problems of central importance to Maine:

- What is happening to our wildlife?
- How is the timing of our seasons changing?
- What kinds of contamination may be harming our landscapes?
- Can citizen science help us locate landscape features that are small in scale but large in impact?

Citizen science produces more than just data; it offers a broad range of opportunities for strengthening education at all levels, from grade school through graduate school. Citizen science also increases opportunities for lifelong learning.

As is apparent from reading these articles, citizen science is not without its challenges. A key challenge will be to ensure diversity in those who become involved in citizen science, which will call for better understanding of the barriers to participation. As citizen science moves toward greater use of technology, how do we ensure that those without familiarity with such technology aren't inadvertently excluded? How do we ensure that citizen science opportunities do not exclude people who live in remote or rural areas? How do we draw on the knowledge of New Mainers or people who do not have much free time?

Exciting as the current topics being investigated through citizen science are, many other topics remain that could be investigated in this way. As reflected in the issue's articles, much of the current citizen science work in Maine focuses on conservation-related topics. Many other problems, such as those in the health arena, may also lend themselves to citizen science approaches; we see this in the vivid examples from Arizona and Colorado discussed in the issue. These examples show how the reach of citizen science might be expanded as we seek a broader range of scientific approaches to assist in addressing our pressing problems.

And policy impacts. Some of the articles explore the problem of how research approached through citizen science might better inform policy. Are there points in the policy development process where the availability of research findings is especially important? Is the involvement of particular groups of citizen scientists important for increasing impacts on policy? Do we have an adequate understanding of the conditions under which science influences policy? Do we understand how policy is promulgated in different arenas? Do we understand how science needs to be done to maximize its impacts on policy? What quality controls must be in place for citizen science to be considered reliable enough to be used for policy? Citizen science raises a range of questions and points to enhanced opportunities for science to make a difference.

It seems that one cannot pick up a newspaper these days without encountering stories about citizen science. We read about citizen scientists who have kept extensive long-term records of the water quality of lakes where their families have had homes for generations. We read of citizen scientists studying river herring. We read about citizen scientists studying Maine's ancient midden piles. Maine is a state with many assets and issues, and the opportunities in citizen science to address them are enormous and growing. As Ruth Kermish-Allen notes in her article, citizen science is about building bridges between community, science, and action. All the articles in this special issue of *Maine Policy Review* help us think about these important issues. 🐟



Linda Silka is the executive editor of *Maine Policy Review*. A social and community psychologist by training, Silka was formerly director of the University of Maine's Margaret Chase Smith Policy Center. In addition to her role with *MPR*, she is a senior fellow at UMaine's Senator

George J. Mitchell Center for Sustainability Solutions.