

Contents

4 From the Publisher

POINT OF VIEW ARTICLES

6 Citizen Science and Our Democracy

9 Science and Civic Engagement in the
Developing Democracy of Georgia

*Lali Gogeliani, Mzia Zhvania,
Nana Japaridze*

PROJECT REPORTS

13 Preparing Future Teachers Using a
SENCER Approach to Positively Affect
Dispositions Toward Science

Mark L. Fink

21 Quantifying the Atmospheric Impact
and Carbon Footprint of an Urban
Biomass Incinerator

John M. Zobitz

RESEARCH ARTICLE

28 SENCERizing Preservice K–8
Teacher Education: The Role
of Scientific Practices

Amy H. Utz and Richard A. Duschl

REVIEW ARTICLE

37 Emerging Topics in the Study of Life
on Earth: Systems Approaches to
Biological and Cultural Diversity

*Nora Bynum, Eleanor Sterling,
Brian Weeks, Andrés Gómez,
Kimberley Roosenburg, Erin Vintinner,
Felicity Arengo, Meg Domroese, and
Richard Pearson*