

Borealis

The Newsletter of the



PO Box 141613, Anchorage, Alaska

October - November 2022

Join us at our Next Meetings!

Monday, October 3, 7:00 PM

Main Topic: "Summer Plant Pics"

Speaker: YOU!

Members are encouraged to share up to 10 plant photos from 2022 and discuss them for few minutes during the meeting.

Virtual Meeting Link: [Join via Zoom](#)

Meeting ID: 938 2833 2935

Passcode: 362610

In-Person Meeting: [Campbell Creek Science Center](#), located at 5600 Science Center Drive in Anchorage

Monday, November 7, 7:00 PM

Main Topic: "Ethnobotany in Alaska - Training, Knowledge and Applications"

Speakers: Lisa Strecker and Ana Harrington

Mini-Botany

Apiaceae: *Glehnia* and *Oenanthe*

Speaker: Marilyn Barker

Botany in the News: TBD

For the latest information about ANPS events and field trips, go to www.aknps.org/



Monthly Meetings Resume - Zoom & In-person!

This fall, AKNPS is turning a new leaf *and* going back to its roots.

Starting with our Oct. 3 meeting, we will be **concurrently** resuming in-person meetings at the Campbell Creek Science Center in Anchorage as well as offering Zoom for virtual attendance. We hope to provide a similar experience for virtual and in-person attendees. While we are on a learning curve, the CCSC recently won a **national award** for distance learning.

This means that no matter where you are – in Anchorage, Utqiavik or New York City – you can participate and share in real time – well, it might be kind of late for those of you on the East Coast.

Before joining a Zoom meeting on a computer or mobile device, you should [download Zoom](#) from the [Download Center](#). Otherwise, you will be prompted to download and install Zoom when you click a join link. You can also [join a test meeting](#) to familiarize yourself with using Zoom, or [join a meeting without an account](#). Meeting ID: 938 2833 2935 Passcode: 362610

Attending in person? We anticipate room to spread out and will make changes if attendance exceeds expectations. We will also comply with COVID requirements for the CCSC building and notify members in advance of any meeting changes. Masks are welcome, and will be required if Anchorage rises to "high" on the [COVID-19 Community Level Tracker](#).

Share and discuss up to 10 of your 2022 native plant photos at the Oct. 3 meeting!

Options are to:

- Upload your photos to the [October 2022 AKNPS Photo Album](#) (please type in your name/plant ID/location)
- Submit photos via [email](#) with same details above.
- Share via Zoom during the meeting. You'll need to be certain that your screen can be visible to the group.

Board Officer Elections at Nov. 7, 2022 Meeting

At the Alaska Native Plant Society's Nov. 7, 2022 member meeting, members will elect board officers (president, vice president, treasurer and secretary) for the 2023-2025 term.

The bylaws call for a slate of officers to be provided to the secretary by October 1, and additional nominations can be made from the floor. Officers are elected by a favorable vote of 2/3rds of the votes cast in-person and electronically, and take office in the coming January.

Anyone who is interested in serving as a board officer or wants to learn more can reach out to a member of our Nominating Committee, composed of President Elizabeth Bluemink (president@aknps.org), Treasurer Aaron Wells (treasurer@aknps.org) and Past President Dennis Ronsse (dennis.ronsse@gmail.com.)

Bon Voyage to Mary Stella

AKNPS bids a fond farewell to past Treasurer Mary Stella who is moving in September to Chester, Virginia.

Mary stepped into the role of Treasurer and helped transition AKNPS to modern accounting software. She also took the lead role at the Campbell Creek Science Center wildflower gardens after the passing of Verna Pratt.

Mary retired from her role as Treasurer two years ago to take on some different work with the Civil Air Patrol, but she continued to work many long hours at the CCSC gardens. She recently told us that she loved working with AKNPS. "Membership allowed me to feel a part of something, especially our garden community," she said.



Past AKNPS president Beth Baker voiced this appreciation: "*Mary was an indefatigable, self-propelled worker. Mostly I just tried to stay out of her way as her labor and ideas were all fabulous. She had a lot of flower gardening expertise that none of the rest of us had. She also had an excellent connection with the Alaska Botanical Garden which*

gave us the rocks to line the beds free of charge. Mary arranged for the rock donation and even supplied the pickup truck and labor energy to get the rocks moved to the pollinator beds. She bought and hauled the bark to line the walkways. She also bought and hauled the plastic liner tubing to outline the beds. Even when she "retired" from ANPS for a different volunteer effort, she returned to lead in this last summer's wedding efforts. We would not have the pollinator garden that we have without Mary's knowledge, energy, and persistent dedication to the project!! We already miss her, and she only left a few weeks ago. Thank you, Mary!!!"

The CCSC recently presented Mary with a certificate recognizing her volunteer work in the gardens and included the following tribute in CCSC's Sept 1 Field Notes:

"Mary has ...worked tirelessly to rejuvenate the pollinator garden and to reestablish a clear path in the firewise garden. The CCSC hopes that Mary's new gardens in the southern U.S. are filled with bountiful flowers and not-so-stubborn weeds. THANK YOU for your dedication and time."

Borealis

the newsletter of the



ALASKA NATIVE PLANT SOCIETY

State and Anchorage Chapter Officers

President	Elizabeth Bluemink
Vice President	Zoe Meade
Secretary	Ginger Hudson
Treasurer	Aaron Wells

Program Coordinators

Plant Family/Mini Botany	Marilyn Barker
Field Trips	Beth Norris
Seed Fundraiser	Erika Wolter
Technology	Aaron Wells and Timm Nawrocki

Newsletter ("**Borealis**")

Editor	Ginny Moore
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Borealis is published bi-monthly, fall through spring. Articles may be sent to Ginny Moore, 14530 Echo Street, Anchorage, AK 99516. Phone or FAX: 345-1355, E-mail: elfinwood@gmail.com

Blitzing-out on Botany!

A summary of the 2022 Alaska Botany Bioblitz

By Aaron Wells

The Alaska Botany Bioblitz was organized by the Alaska Native Plant Society, the purpose of which was to record as many observations of plants in Alaska as possible between July 1–31, 2022. To contribute, participants took photos of plants in Alaska and uploaded the photos to iNaturalist, a citizen-science platform. Here I present a brief summary of the results of the 2022 Alaska Botany Bioblitz.

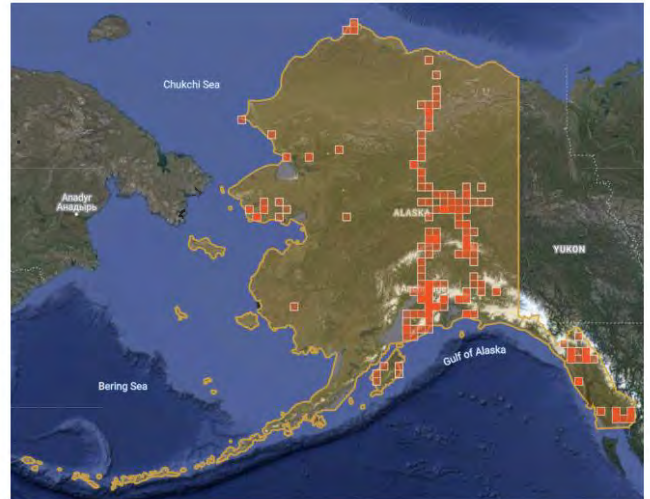


Figure 1. The map of Alaska Botany Bioblitz observations from iNaturalist. The squares represent areas with one or more observations

To prepare the summary I downloaded the data from iNaturalist, imported the data into a database, reviewed the data for quality control purposes, standardized the taxonomic names to match the accepted names in the Flora of Alaska Provisional Checklist (Ickert-Bond et al. 2019, <https://floraofalaska.org/provisional-checklist/>), and prepared some basic summary statistics. Note that results are as of Sept. 6, 2022, the day I downloaded the data. This is important to note because there have been a few additional observations uploaded, and possibly a few more identifications made after Sept. 6. Therefore, the results won't match exactly with the iNaturalist AK Botany Bioblitz page as of the printing of this article.

There were a total of 11,039 observations contributed by 112 observers. A total of 288 people voluntarily contributed identifications for the observations. For those not familiar with iNaturalist, for a given observation an initial identification is provided by the observer, and then the broader community can weigh in on the identification. If more than two-thirds of the people agree on an identification then the observation is assigned a quality of "Research Grade". Of the total observations, 61% (6,741) were research grade. The remaining 39% (4,298) were not research grade ("Needs ID"), meaning that either no one has reviewed them and provided an identification (aside from the person who posted the observation), they have been reviewed but the identifier could not make an accurate ID based on the available photos, or they have been reviewed and there is <2/3 agreement on the identification.

Observations spanned southeast to northwest from Ketchikan to Utqiagvik, and east to west from McCarthy to Point Hope (Figure 1). The vast majority of observations were located <2 miles from roads, cities, towns, and villages. Some noteworthy exceptions are a few observations in the Steese National Conservation Area south of Central, AK, an observation near the Niukluk River, approx. 75 miles northeast of Nome, and a number of observations from Misty Fjords National Monument east of Ketchikan. The greatest concentrations of observations were around major population centers, including Anchorage, Juneau, Eagle River, and Fairbanks. Of the smaller towns and villages, Utqiagvik, Gustavus, Ketchikan, and Sitka had relatively high concentrations of observations. Lastly, Toolik Field Station, a University of Alaska, Fairbanks research station located just north of the Brooks Range, also had a high concentration of observations. The most observations recorded in a single day, 714, occurred on July 3, which was during the first weekend of the bioblitz (Figure 2). Second was July 2 at 689 observations, which was also during the first weekend. Third was July 27 with 628 observations. This was the day that the pre-conference field trips occurred for the Botany 2022 Conference held in Anchorage, AK on July 24–27.

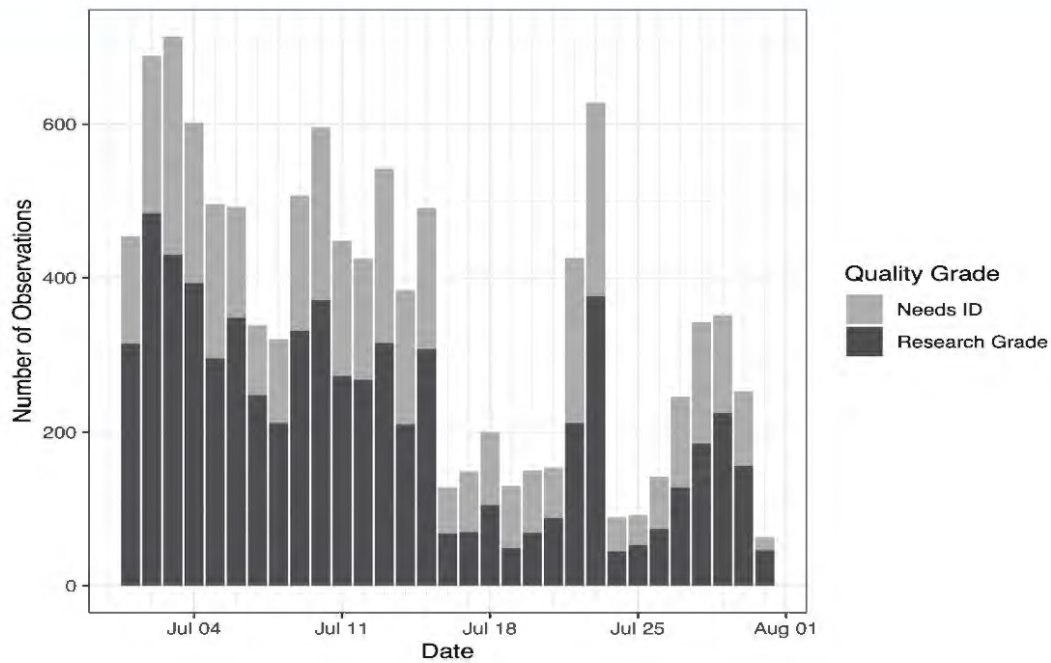


Figure 2. The number of observations per day from the 2022 Alaska Botany Bioblitz

Of the research grade observations, 99% (6,682) were of vascular plants, e.g., wildflowers, trees, shrubs, ferns, grasses. The remaining 1% (59 observations) were of non-vascular plants, primarily mosses, liverworts, and hornworts, which scientists collectively refer to as bryophytes, and also a few algae species. There were 641 species, subspecies, or varieties of vascular plants observed which represents 29% of the approx. 2,200 vascular species, subspecies, or varieties of vascular plants known to occur in Alaska based on the Flora of Alaska Provisional Checklist. There were 28 species of non-vascular plants observed, including 24 bryophyte species, and 4 algae species. The 24 bryophyte species represent <1% of the approx. 1,100 bryophyte taxa known to occur in Alaska.

The 5 most commonly observed species were: *Chamaenerion angustifolium* (135 RG observations), *Aconitum delphiniifolium* (80), *Chamerion latifolium* (76), *Empetrum nigrum* (73), and *Linnaea borealis* (72). Figure 3 presents a donut chart displaying the proportion of research grade observations by lifeform from the Alaska Botany Bioblitz. Forbs (a.k.a. wildflowers), at 63.5%, represent more than half of the total research grade observations. Low and tall shrubs and graminoids (grasses, sedges, rushes) were tied at 8.8% as the second most commonly observed lifeforms. The third most commonly observed lifeform was spore-bearing vascular plants (ferns and allies) at 7% of the research grade observations. The least most observed lifeforms were liverworts and algae.

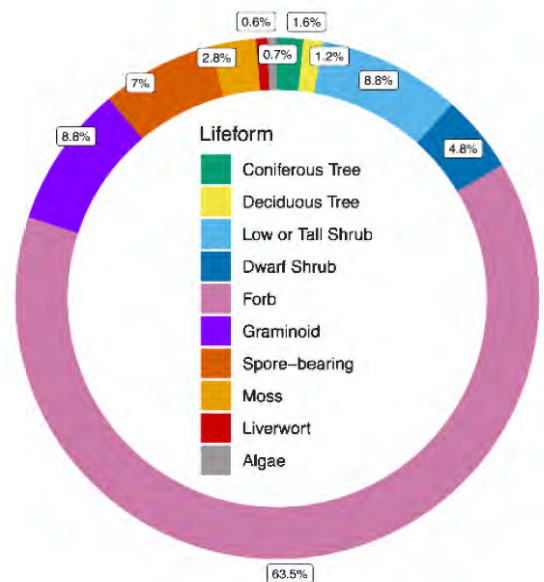


Figure 3. The proportion of research grade observations by lifeform from the Alaska Botany Bioblitz.

There were 8 species of rare plants observed during the Alaska Botany Bioblitz (Table 1), these are plants that are listed on the Alaska state rare plant list. The observations of rare plants contribute important data for the conservation of these species. There were 89 species of non-native plants observed.

The 3 most observed non-native plants were *Lepidotheca suaveolens* (pineapple weed, 46 RG observations), *Vicia cracca* (tufted vetch, 39), and *Plantago major* (greater plantain, 37). Of these 3 species, *Vicia cracca* has the highest invasiveness ranking (73), a ranking system that ranges between 0 and 100 with higher numbers indicating a greater degree of invasiveness. The non-native plant observations can help land managers by providing information about the locations of non-native plant populations to inform future eradication efforts. More information on non-native plants in Alaska can be found here:

<https://accs.uaa.alaska.edu/invasive-species/non-native-plants/>.

Scientific Name	State Rare Rank ¹	Number of Observations
<i>Apocynum androsaemifolium</i>	S3	1
<i>Artemisia senjavinensis</i>	S3	1
<i>Botrychium alaskense</i>	S3	2
<i>Botrychium tunux</i>	S2	1
<i>Juniperus horizontalis</i>	S3	3
<i>Maianthemum stellatum</i>	S3	4
<i>Parrya nauruaq</i>	S1S2	1
<i>Phlox richardsonii</i>	SU	1

Table 1. Plants listed as rare on the Alaska state rare plant list that were observed during the 2022 Alaska Botany Bioblitz. ¹For definitions please see State Conservation Rank Definitions on page xvi in Nawrocki et al. 2013.

Many thanks to all who contributed to the Alaska Botany Bioblitz! To view the project on iNaturalist please visit: <https://www.inaturalist.org/projects/alaska-botany-bioblitz>.

Literature Cited

Ickert-Bond, S.M., B. Bennett, M.L. Carlson, J. DeLapp, J.R. Fulkerson, C.L. Parker, T.W. Nawrocki, M.C. Stensvold, and C.O. Webb (eds.). 2019. Flora of Alaska. Available: <https://floraofalaska.org>

Nawrocki, T.W., J.R. Fulkerson, and M.L. Carlson. 2013. Alaska Rare Plant Field Guide. Alaska Natural Heritage Program, University of Alaska Anchorage. 352 pp.

POLLINATOR HABITAT WEBINAR – IT’S FREE!

The Ohio State University Bee Lab <https://u.osu.edu/beelab/courses/> is offering a free webinar series this fall related to creating a pollinator habitat. The only downside is that it takes place weekly on Fridays at 10AM EASTERN TIME, but the upside to that is that sessions are recorded and you can access them at a later time.

Pollinator Habitat 101: An Introduction and Refresher - October 14th - November 11th, 2022

You do not need to register to have access to the recordings, but if you register you will receive notice when recordings are ready to view. Each session will last about 60 minutes plus questions.

10/14: Doug Tallamy, University of Delaware

Pollinators’ Best Hope: A New Approach to Pollinator Habitat That Starts in Your Yard

10/21: Harland Patch, Penn State University

Creating Pollinator Gardens: the Role of Plant Choice and Design

10/28: Heather Holm, Author and Biologist

Creating and Managing Habitat for Native Bees

11/4: Matthew Shepherd, The Xerces Society for Invertebrate Conservation

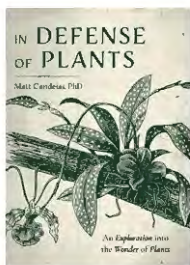
Deciding To Create A Pollinator Garden Is The Easy Step — What To Do Next?

11/11: Shana Byrd, The Dawes Arboretum

Getting Started with Wildflower Patches, Flower Strips, and Meadows



FROM OUR BOOKSHELVES



In Defense of Plants

By Matt Candeias
Mango (February 23, 2021)
ISBN-10 : 164250453X

If you enjoyed books like *The Botany of Desire*, *What a Plant Knows*, or *The Soul of an Octopus*, then you'll love *In Defense of Plants*, by Matt Candeias. You may have heard Matt's podcasts by that same name. He was also one of seven authors on *Flora: Inside the secret world of plants*, a joint publication between the Smithsonian and the Royal Botanical Gardens at Kew. When he's not tending to his houseplants, find him at yearly botanical talks in garden groups, museums, clubs, and more. This is his debut book.

Reviews

"Plants are bulwarks against climate change and the devastating tsunami of the Anthropocene. In his new book, Matt has produced a Bildungsroman mapping not just his journey, but that so many of us have taken to redefine the dynamic of Plant, People and Planet. It's an irresistible read."

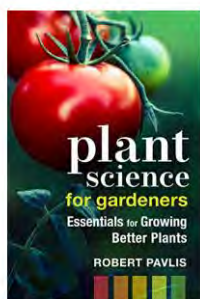
—Panayoti Kelaidis, senior curator and director of outreach at Denver Botanic Gardens

"For many of us, plants serve as a kind of quiet backdrop to the world's more compelling biological dramas. Ecologist Matt Candeia shows just how much we're missing. With wonder and an infectious enthusiasm, he takes readers on a thrilling botanical journey. His book is not merely an impassioned defense of plants, but a full-throated celebration of them."

—Eric Wagner, author of *After the Blast: The Ecological Recovery of Mount St. Helens*

"Through his curiosity and intense passion for the natural world, Matt Candeias has neatly constructed in this book a condensation of what it feels to be the consummate plantsperson. Through this writing, as well as through his weekly podcasts, I find myself absorbed by his veneration for the magic and majesty of the floral kingdom in a manner so few are so able to achieve."

—Daniel J Hinkley, director emeritus of the Heronswood Garden



Plant Science For Gardeners

By Robert Pavlis
New Society Publishers, June 2022

Most gardeners learn by accumulating rules – water once a week, never dry out snowdrop bulbs, prune lilacs after flowering, plant garlic in October—the list is endless. Rules take years to learn and yet leave you floundering when the unexpected strikes. **Plant Science for Gardeners** hopes to empower growers to analyze common problems, find solutions, and make better decisions in the garden for optimal plant health and productivity. The author has also previously published "Soil Science For Gardeners".

Coverage includes:

- The biology of roots, stems, leaves, and flowers
- Understanding how plants function as whole organisms
- The role of nutrients and inputs
- Vegetables, flowers, grasses, and trees and shrubs
- Propagation and genetics
- Sidebars that explode common gardening myths
- Tips for evaluating plant problems and finding solutions.



FROM WHAT WE GATHER



Students Conduct Plant-Pollinator Research in Alaska

More than 100 students and researchers from universities all over the world spent the last two and a half months in Alaska studying the effects of climate change on the plant-pollinator community. They were at *Toolik Field Station*, an international field station north of the Arctic Circle, on Alaska's North Slope. This research was part of the International Tundra Experiment (ITEX), a consortium of scientists that carry out long-term studies of climate change in arctic, Antarctic, and alpine sites.

The Arctic is warming faster than any other region on Earth. Scientists hope to understand the rapid ecological changes that are taking place to predict how this region will look in the future and what that means for energy balance and biodiversity on the planet.

As part of the research, the students used passive warming devices, open top chambers, and compared timing of flowering and insect activity in the warmed plots versus the control (un-warmed) plots. A long-term goal with this research is to see if the phenology, or timing of flowering, of the warmed plants changed, compared to the controls.

Alaskans: Plant This, Not That - Beautiful Alternatives to Harmful Plants

It is never too early to start thinking about what you want to plant in your gardens next year. US Fish & Wildlife Service, Alaska Region is asking you to consider avoiding planting seemingly beautiful but invasive species and **choosing a plant that has evolved with Alaska's other flora and fauna**. Choosing to grow a native plant benefits the insects that have lived with these flowers for generations, feeding on their pollen and nectar. Native plants also feed animals and provide shelter and nesting for birds and insects. The native fruits and seeds from your garden help keep Alaska's lands and waters healthy. Their website offers beautiful alternatives to 5 plants that have become invasive here. Check out the details on all five here: <https://www.fws.gov/story/alaskans-plant-not>

<p>PLANT THIS</p> <p> Serviceberry (<i>Amelanchier alnifolia</i> or <i>A. florida</i>)</p>  <p><small>© P. Stepien for Young Master's Place</small></p>	<p>NOT THAT</p> <p> Chokecherry (<i>Prunus padus</i> or <i>Prunus virginiana</i>)</p>  <p><small>© P. Stepien for Young Master's Place</small></p>	<p>PLANT THIS</p> <p> Arnica (<i>Arnica</i> spp.)</p>  <p><small>© P. Stepien for Young Master's Place</small></p>	<p>NOT THAT</p> <p> Orange Hawkweed (<i>Hieracium aurantiacum</i>)</p>  <p><small>© P. Stepien for Young Master's Place</small></p>
<p>PLANT THIS</p> <p> Alpine Sweetvetch (<i>Hedysarum alpinum</i>)</p>  <p><small>© P. Stepien for Young Master's Place</small></p>	<p>NOT THAT</p> <p> Bird Vetch (<i>Vicia cracca</i>)</p>  <p><small>© P. Stepien for Young Master's Place</small></p>	<p>PLANT THIS</p> <p> Yellow Locoweed (<i>Oxytropis campestris</i>)</p>  <p><small>© P. Stepien for Young Master's Place</small></p>	<p>NOT THAT</p> <p> Butter and Eggs (<i>Linaria vulgaris</i>)</p>  <p><small>© P. Stepien for Young Master's Place</small></p>

Alaska Native Plant Society
P.O. Box 141613
Anchorage, AK 99514

ANNUAL MEMBERSHIP APPLICATION/RENEWAL

The Alaska Native Plant Society was organized in 1982 by an enthusiastic group of amateur and professional botanists. It is a non-profit educational organization with the goal of uniting all persons interested in the flora of Alaska. Membership is open to any interested individual or organization. If you wish to join us or to renew, you can either use our convenient online method by going to <https://aknps.org/membership>, or fill in the form below, and mail it with the appropriate remittance to:

Alaska Native Plant Society
P. O. Box 141613
Anchorage, AK 99514

STATUS NEW RENEWAL

CATEGORY	E-Mail Newsletter	Snail-Mail Newsletter	Both Mail Deliveries
<input type="checkbox"/> Full-time Student	\$12	\$22	\$22
<input type="checkbox"/> Senior Citizen	\$12	\$22	\$22
<input type="checkbox"/> Individual	\$15	\$25	\$25
<input type="checkbox"/> Family	\$20	\$30	\$30

Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Telephone: (Home) _____ (Cell) _____ E-mail _____

PLEASE RENEW OR JOIN TODAY!
ANPS Membership is on a calendar-year basis.

OCTOBER 3rd Meeting in person at Campbell Creek Science Center or
Via Zoom: Meeting ID: 938 2833 2935 Passcode: 362610