Aase's onion (Allium aaseae) is a low-growing plant with a striking display of small pink flowers that bloom in early spring (Figure 1). Its global distribution is limited to southwestern Idaho, primarily in the Boise to Emmett foothills, but also with a few disjunct populations near Weiser. Aase's onion occupies dry, relatively sparsely vegetated, well-drained, sandy soil slopes, usually within bitterbrush or bitterbrush–big sagebrush plant communities. Much of this habitat has been degraded by weed invasion and other disturbance over the years. Furthermore, portions of multiple Aase’s onion locations have been destroyed, mainly due to urban development in the Boise foothills area. The majority of locations known to support Aase’s onion in the Boise foothills occur fully or partially on private property. However, Ada County, City of Boise, State, and Bureau of Land Management lands also support substantial Aase’s onion populations.

Aase’s onion has been on the INPS Idaho Rare Plant List since the list inception in the 1980s. It is a conservation concern because of its restricted geographic range; the documented loss and degradation of habitat, especially in the Boise foothills; the vulnerability of its habitat to threats such as wildfire, weed invasion, sand mining, recreational impacts, and foothills development; and the location of many occurrences on private land, where conservation options are typically limited.

Populations of Aase’s onion in the Boise foothills are found within five City of Boise (COB) open space properties, including Camel’s Back Reserve, Hillside to Hollow Reserve, Hulls Gulch Reserve, Military Reserve, and Polecat Reserve. The first systematic effort to document Aase’s onion occurrences in the reserves and other portions of the Boise foothills took place in the early 1990s. A series of surveys in the reserves in 2008 updated much of this documentation and also discovered some new populations. Information collected during these previous surveys represent our “baseline” conditions for Aase’s onion abundance and its habitat in the foothills.

In 2021, and as a response to growing conservation concerns, the INPS Pahove Chapter and COB/Department of Parks and Recreation teamed up to initiate a long-term monitoring program for Aase’s onion in COB reserves. The monitoring program’s objective is to provide COB land managers with information to assess the conservation status of Aase’s onion and to inform any conservation actions that may be needed. The goal of the program is to collect Aase’s onion population abundance and habitat condition trend information. These monitoring data can be used to prioritize invasive species management treatments, educate the public about rare plant conservation efforts in the foothills, and guide other possible proactive conservation measures. This project marks the first monitoring effort ever undertaken for Aase’s onion in the Boise foothills.
Letter from the President

I thank President Mike Mancuso for allowing me one last opportunity to communicate with the INPS membership at the end of my tenure as president. I feel a deep need to thank each of you for your support, and more importantly, your friendship during this period of my life. I especially wish to thank the members of the board and the other chapter officers for their collegiality. I have found extreme pleasure in working with people who are willing to dedicate precious time to a cause they obviously value.

Most of you will recall the months five years ago that followed my collision with a massive heart attack. For seven months, I was completely out of public circulation. My life and future hung in the balance. It would have been easy for me to give up on INPS service at that point. Also, it would have been logical for the board to replace me. But, due to ongoing support for me (or maybe hesitation on the part of everyone to take the organizational reins), the board and membership patiently awaited my return. I have never expressed this sentiment, but pending responsibilities associated with our organization were key to strengthening my will as I pushed toward recovery. Thank you all for your understanding and support during those very difficult months.

I plan to continue service to INPS. In my new role as vice-president, I will be heavily involved in overseeing the planning of our annual meetings. I am excited about the new opportunities this service will create for me personally. I look forward to my continued association with each of you. I have deep appreciation for this organization and the dedicated people working to advance its mission. Thank you for making my life more interesting and fulfilling.

Stephen Love,
INPS Vice President
The Annual Meeting of the Idaho Native Plant Society was hosted this year in Pocatello by the Sawabi Chapter, June 17-21. There were a few early arrivals on Thursday night, but Friday was the real start. Those who had arrived by 10 am were taken on a tour of the Idaho Museum of Natural History which included the Ray J. Davis Herbarium, as well as a look in the basement collections for paleontology, geology and anthropology. A second tour started at 2 pm and included the same behind-the-scenes peek at what the museum stores and manages. Both tours allowed participants to visit the current exhibition “This is Idaho” which highlights why we love this state. The Board of Directors met via Zoom at the museum. Afterwards they joined others at the group shelter. The potluck dinner at the group site was followed by Paul Allen’s “Botany Bingo” that had us matching photos from his slide show to bingo cards he had made. Several folks won the prize of a deck of cards featuring wildflowers made from the same photos.

Saturday activities featured plant walks to the Allen cabin in a mixed forest/steppe habitat, the Hells Half Acre Rest Stop on Interstate 15 in a lava flow, and walks through the Forest Service’s Cherry Springs Natural Area along the Mink Creek riparian area. Later the catered dinner was followed by the Annual Meeting. Mike Mancuso was elected President and Janet Bala was re-elected as Secretary. The fund-raising auction for ERIG was concluded, generating more than a thousand dollars. We then honored Steve with a gift certificate to a local restaurant and several signed “Thank-you” cards. Karl Holte was also honored by the Sawabi Chapter for all that he has contributed to the chapter and students at ISU. Mike Merigliano’s talk on “Tall Forb Plant Communities” wrapped up the evening. Dr. Merigliano is studying the impact of pocket gophers on tall forb communities that live at high altitude on north-eastern slopes that receive heavy snowfall.

Sunday activities included plant walks at the Pebble Creek Ski area; tours at the University of Idaho Plant Experiment and Research Station (hosted by Steve Love); two walks on Scout Mountain which included the Forest Service’s Nature trail; and a more detailed look at the "bog" found next to the campground. Later that evening several of us sat around the tables finishing up the leftovers from the catered dinner and talking into the night.

Monday morning Paul Allen stopped by the site and picked up the folks who signed up for the car tour/plant walk along a Forest road off of Crystal Summit. After they returned, folks started packing up and headed back to their homes.
The INPS-COB collaboration led to the establishment of 23 Aase’s onion monitoring plots within the 5 COB reserves in Spring 2021. Data collection consisted of counting or estimating the number of Aase’s onion plants and recording plant community, weed species, and disturbance factor information within a 1/10 acre circular plot. A series of photographs were also taken at each plot (Figures 2 and 3). The center point of each plot was documented by GPS coordinates. Moving forward, the plan is to resample the plots every three years.

A preliminary review of the 2021 monitoring dataset shows some Aase’s onion sites doing quite well, but others barely holding on. Aase’s onion abundance ranged from fewer than 10 to several 1000 individuals in a plot. Animal digging (mainly pocket gophers) and wildlife tracking (mainly deer) were the most common disturbances recorded in plots. Dog tracks and recreational trails were also recorded in multiple plots. Sampling tallied a total of 17 weed species in the plots. Cheatgrass was the only weed species found in every plot, with abundance ranging from dominant to sparse. Rush skeletonweed, a noxious weed species, was recorded in all but one plot, being common in most cases. Blue bachelor button, another weed of special note in the foothills, occurred in 61% of plots.

In addition to Aase’s onion, the Boise area foothills support populations of three other rare plant species—Boise sand-verbena (*Abronia mellifera* var. *pahoveorum*), Mulford’s milkvetch (*Astragalus mulfordiae*), and slickspot peppergrass (*Lepidium papilliferum*). In 2019, INPS and COB collaborated to collect monitoring data at 12 pre-existing Mulford’s milkvetch monitoring plots located in the Boise foothills. These plots had not been sampled since 2008. I see the Mulford’s milkvetch and now the Aase’s onion monitoring programs as opportunities for the INPS Pahove Chapter to be directly involved in rare plant conservation efforts in the Boise foothills. We have tentative plans to get monitoring efforts off the ground for Boise sand-verbena in 2022. If this happens, the Pahove Chapter would have an annual monitoring schedule rotating between the three species, ensuring the collection of updated monitoring data for each species every third year. Having such up-to-date information will help provide rationale for COB conservation efforts and hopefully make them more timely, efficient, and effective.

Boise and adjoining communities comprise one of the fastest growing urban areas in the United States. An extensive network of open space reserves and associated trail systems are main attractions to living and working in the area. The growing population is putting an unprecedented strain on open space resources, largely due to...
Most of us have been on both sides of a plant photograph, and nothing is more disappointing than going back to identify a plant and realizing your photos are of no help identifying your new friend. Photos are a more eco-friendly and convenient method of collecting samples. While plant samples are often necessary for official records, photos are a preferred alternative that helps maintain larger populations and preserve smaller communities.

Photos on the phone

With the advancement of technology, most people have some sort of a camera phone with them when they encounter a new bloom. When taking photos on a phone, there are a few key things to keep in mind:

1. **Focus.** Making sure the photo you are taking is in focus is crucial to plant identification. Tapping the middle of your phone screen (on the image of the plant) will help tell the camera what it needs to be focusing on. Additionally, if you find your hands shake while taking photos it may be best to hold your phone closer to your body as this stabilizes the camera phone. Alternatively, you can also prop your phone up against rocks, purchase a pocket-sized tripod, or use anything else that may help stabilize your phone.

2. **Subject matter.** When taking photos of plants for identification it’s important to get close-up photos of three things: the flowers or any reproductive parts of the plants, the leaves and how they are arranged on the plant, and a shot of the whole plant and its environment. These are the things that a plant identification book (or your resident botanist friend) will likely ask about. It is also helpful to take photos from multiple angles so that all the plant’s features are captured!

   If you have a hand lens, try taking a photo through it! Although these photos are notoriously tricky to get into focus, it can produce great results (Figure 1). It is easiest to put the hand lens up to the phone lens, and then move them together closer or farther from the feature you wish to capture. Moving the phone/hand lens unit ‘manually’ focuses the camera.

3. **Size reference.** When taking photos of a plant it is always good to take a photo with an object next to the plant to gauge its height and width as seen in Figure 2. Not all of us carry around rulers to measure plants, but any object of known size will work. Common reference objects typically include the following: a ruler (often found in the front or back of a field guide), hand lens, coin, or a person (for taller plants).

4. **Unusual features.** If you notice anything unusual about the plant it is likely an identifying factor that should be documented, so take a photo of it! If the feature is too fine to appear in the photo, write a note describing its appearance and location on the plant.

Physical sample collection

Physical samples are often preferable to photos, so if there are enough individual plants (100 or more) that you can safely take a sample, do! Here are a few tips for how to take samples and preserve them for later identification:

1. **Take Notes.** Helpful things to take note of are the date, time, location (latitude, longitude, and altitude), the weather, and the surrounding habitat type. These can help you narrow what type of plant you have found through its geography and terrain.

2. **Take a complete sample.** Often when given a plant to identify, botanists are handed a singular leaf or flower...Continued on Page 6
invasion, wildfire risks, and decline in native plant community integrity. These adverse impacts extend into foothills habitat occupied by Aase’s onion and other rare plant species. Maintaining populations of Aase’s onion in COB open space reserves is crucial to the species’ long-term conservation. The same can be said for Mulford’s milkvetch and Boise sand-verbena. Monitoring is just one of several roles INPS can be part of in helping the COB protect and maintain rare plant species populations on its reserves.

The Aase’s onion monitoring project was collaboration and could not have happened without the support of Martha Brabec, COB/Department of Parks and Recreation ecologist. Success also required the dedicated assistance of INPS volunteers Dondi Black, Ann DeBolt, Don Essig, Michael Mancuso, Sallie Morse, and Jan Reed. Marta Soderlund with the COB also provided help with the project.

Send us your fun plant finds at Sage Notes (sage-editor@idahanativeplants.org)!

Figure 3. A complete sample with roots, leaves, flowers, and environmental collection data.

Backpack Essentials for the Field
Learn to identify almost 100 plant species and understand the value of these plants with the newly published field guide and offline smartphone app. In the field or the classroom, these companions make fieldwork a breeze!

A FIELD GUIDE TO BRASSES AND GRASS-LIKE PLANTS OF IDAHO

Scan to Purchase

Get the App Today

Available on the
App Store

GET IT ON
Google Play

Send us your fun plant finds at Sage Notes (sage-editor@idahanativeplants.org)!

Figure 3. A complete sample with roots, leaves, flowers, and environmental collection data.

Send us your fun plant finds at Sage Notes (sage-editor@idahanativeplants.org)!

Figure 3. A complete sample with roots, leaves, flowers, and environmental collection data.
Chapter News

CALYPSO CHAPTER
When: Chapter meetings will remain suspended until this fall. Meetings are normally held the first Wednesday of March, April, May, and October at 7:00 pm.
Where: Meeting are held in the Wildlife Building, North Idaho Fairgrounds, Coeur d’Alene.
Contact: Derek Antonelli, ds.ca.antonelli@gmail.com

Upcoming Events
August 14: Moose Lake Plant Walk. Watch for details via chapter email.
August 28: Antione Peak Plant Surveys. We will be conducting surveys to generate plant list for the conservation area near the Spokane Valley. Surveys will start at 10:00 am. Everyone welcome. Watch for details via chapter email.

LOASA CHAPTER
When: Meetings held third Thursday of each month at 7:00 pm.
Where: Taylor Building, Room 247, College of Southern Idaho, Twin Falls.
Contact: Bill Bridges, bridgesbill34@yahoo.com

PAHOVE CHAPTER
When: Meetings are held on the second Tuesday of each month from September–April at 7:00 pm. Times, dates, and topics are tentative. Current information will be sent to members via email. Events are also posted on the Pahove Chapter page of the INPS website: https://idahonativeplants.org/pahove/
Where: Meetings are usually held in the MK Nature Center Auditorium, 600 S. Walnut St, Boise. For the safety of our community, meetings will be held via Zoom until further notice.
Contact: For more information about Pahove Chapter activities visit the website: www.idahonativeplants.org or email Karie Pappani at pahove.chapter.president@gmail.com.

Upcoming Events
Our 2020-21 season looked a bit different than other seasons in the past. Remarkably, our monthly presentations continued, even though we weren’t able to gather in person. Those online presentations can now be viewed on the new Idaho Native Plant Society YouTube Channel (https://www.youtube.com/channel/UCCuYDvZ49hQfFAAAttXJc4JA). Our plant sale, which was online again this year, was a huge success. The Wildflower and Weed Show, hosted this year at Idaho Botanical Garden, was also a big success. Thank you to everyone who participated in our presentations and events, purchased plants from our sale, and otherwise supported the Pahove chapter during this exceptional year.

The 2021-22 season will kick-off this September. Stay tuned for further details, which will be posted via email on the Pahove Chapter page of the INPS website.

SAWABI CHAPTER
When: Meetings are held on the first Monday night of October, November, January, February, March and May. Programs begin at 7:00 pm and refreshments are available afterwards. Each meeting begins with a short presentation on the plant family of the month.
Where: The Middle Fork Room of the Pond Student Union Building on the lower Idaho State University campus.
Contact: Geoff Hogander, ghogande@yahoo.com

UPPER SNAKE CHAPTER
Contact: Kristin Kaser, kaser.kristin@gmail.com

WHITE PINE CHAPTER
When: Meetings are held once a month at 7:00 pm except during the summer. Field trips can occur most any month. Please check the chapter website at www.whitepineinps.org for events which may be scheduled or finalized after Sage Notes is printed; or email chapter officers at whitepine.chapter@gmail.com.
Where: Meetings will be held via Zoom until we can meet again in the Great Room of the 1912 Building, 412 East Third St. in Moscow (between Adams and Van Buren).
Contact: INPS, White Pine Chapter, PO Box 8481, Moscow, ID 83843 or whitepine.chapter@gmail.com.

WOOD RIVER CHAPTER
When: Meetings are held on weekday evenings and wildflower walks generally on Saturdays. Times are announced in local news outlets and also in the chapter newsletter. Events are also posted on the Wood River Chapter page of the INPS website.
Where: Each meeting’s location is noted in the announcement.
Contact: Subscribe to the newsletter by emailing Lisa Horton at 1gypsy2016@gmail.com. Address questions about programs to Kristin Fletcher at naturewalker7@gmail.com.

Upcoming Events
August 7: West Fork of Prairie Creek. Abundant wildflowers and talus covered peaks make this a very picturesque hike. Hike difficulty rating: Medium Difficulty, around 4 miles in length and may involve a stream crossing. Meet at LCPL to leave by 8:45. Parking at the trailhead is limited, so we may carpool from the Prairie Creek road pull-off. Back at the car around 3.
August 20-22: Members Only Campout at Trap Creek, west of Stanley. We will be exploring the Bear Valley area on Saturday, camping 2 nights at Trap Creek group site. Cost per RV or tent will be $25 inclusive of the two nights (or even if you only stay one night). To sign up, contact Lisa at 208-721-1798.
For more information on any hike, please email woodriverinps@gmail.com or call Lisa at 208-721-1798.

Sage Notes Vol. 43 (2) June 2021
Sage Notes is published quarterly by the Idaho Native Plant Society.

Editor: Emma Casselman
Layout Editor: Jody Hull
sage-editor@idahonativeplants.org

Submissions: Members and non-members may submit material for publication. Relevant articles, essays, poetry, news, announcements, photographs and artwork are welcome. Authors, artists and photographers retain copyright to their work and are credited in Sage Notes. Send all submissions electronically to the editor at the email address above. Please provide a phone number and/or email address with your submission. Submission deadlines are January 8, April 1, August 1 and November 1.

Advertising: Advertisements help reach environmentally-minded, native plant-loving customers and help support INPS. Prices: 1/8 page = $5, 1/4 page = $8, 1/2 page = $15. Submit ads electronically to the editor (JPG, TIFF, PSD or PDF files). Send payment to: Sage Notes Ads, P.O. Box 9451, Boise ID 83707.

Past Issues: Available online.
https://idahonativeplants.org/sage-notes/

Membership: Join INPS online.
https://idahonativeplants.org/membership/