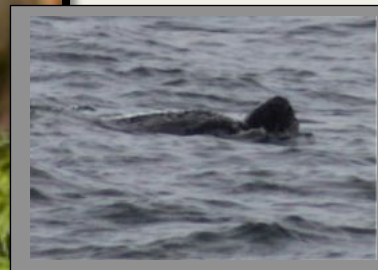




ALASKA HERPETOLOGICAL SOCIETY



Leatherback Sea Turtle sighting - Marty Reedy, USFWS (page 7).

Long-toed Salamander - Ward Lake near Ketchikan, 26 May 2012.
Photo taken by James Lewis.

Upcoming Events

- ❖ Save the Frogs Day (April 14, 2014)
- ❖ Spring Migration Festival (TO BE ANNOUNCED) - Creamer's Field, Fairbanks
- ❖ Mother's Day Frog Walk (May 11, 2014) - Creamer's Field, Fairbanks
- ❖ Denali State Park Herping / Camping Adventure (Summer 2014)
- ❖ AHS Conference (October 2014)

MISSION STATEMENT

The Alaska Herpetological Society is a nonprofit organization dedicated to advancing the field of Herpetology in the State of Alaska. Our mission is to promote sound research and management of amphibians and reptiles in the North, to foster responsible pet ownership and to provide opportunities in outreach, education, and citizen science for individuals who are interested in these species.

From the Desks of the AHS Staff:

President's Corner



What an exciting year it has been for AHS! With 2013 coming to a close, I am very proud to report that our organization continues to grow by leaps and bounds while meeting and exceeding the goals of our mission. Not only have we strengthened our membership base, but we have also moved to affect state legislation, we have provided global educational opportunities through international media productions, and we have spread the word about native Alaska amphibians to many parts of Alaska. Together we have had more positive

influence in the study and conservation of the state's herpetofauna than perhaps any other entity that has come before us. And all of that is within just two years of our formation.

It is my pleasure to again be serving as your President for a second elected term. The outgoing officers were all amazing and they were crucial in helping our young organization to get off the ground. I really appreciate the long hours of work that they put into AHS as Charter Members and I know with certainty that they will continue to be actively involved. Looking forward, the new slate of officers is really quite incredible! We have already begun beating the pavement and pushing forward. It is wonderful to have new energy in leadership positions and I believe that we will be able to accomplish much in the coming year.

As always, I encourage members to get involved in the

organization as much as they can. We now have three active committees (Newsletter / Conference / Education and Outreach) and these are always seeking members to help out! Another way that you can help is by purchasing and wearing our awesome new t-shirts and hoodies! The treasury is slowly growing and starting in the spring, AHS will be offering a \$250 grant for herpetological work in the state. Our 501(c)3 application with the IRS is still pending (go figure), but hopefully we will soon have that status to support our cause.

To conclude I want to stress that my door (and phone) is always open. If you have ideas or suggestions for the organization please do not hesitate to contact me or one of the other officers.

KEEP ON HERPIN!

Joshua T. Ream
President

Vice President's Corner



First off I would like to thank everyone for the opportunity to serve AHS as vice president! In the coming year I am excited to bring AHS and Alaskan amphibians more into the public eye.

A few of the things I would like to pursue as VP will be getting kids in southeast more involved

with citizen science, also an app. for submitting vouchers that is both easy to use and available across platforms and I am very excited at the possibility of saving the Binkley Slough Forest Service cabin for a future herpetological base camp for Stikine research. (also making sure the outhouse will not become a toad trap again).

I would also like to extend an open invitation to all AHS members to come to Petersburg and the Stikine River. If you are interested in a unique herpetological experience I can help make that happen! For this years expedition, Josh and myself are in the fundraising and

planning stages as we speak. I am very excited for that! Crazy that this will be year 3 already...time flies.

Well we have a winter storm warning in effect so this kid needs to get on the preparations for the coming storm (gale force winds and two feet of snow). Have a happy new year Fellow herpers!

Seth Perry
Vice-President
<https://www.facebook.com/seth.p.in.ak>
<http://www.youtube.com/user/sperry06>

Secretary's Corner



I am very excited to be a part of AHS and am looking forward to getting to know all of

you fellow herp enthusiasts! I heard about AHS during my internship work on wood frogs through the National Park Service. They are currently in the midst of partnering up with AHS and ADF&G in a citizen science effort to get the word out about wood frogs in Alaska.

Some big changes are happening in the herp world, and baseline information is so important! The more we find out about our Alaskan amphibians

and reptiles, the better we can educate the public in a mutual effort to preserve and protect these species and their natural habitats.

I am thrilled to be a part of this team and to have the opportunity to help AHS meet its goals!

Amanda Gibson
Secretary

Newsletter Chair's Corner



I am glad to be a part of AHS this year. Having recently

moved away from Nova Scotia where I worked with wood turtles as a seasonal field biologist, I was looking for somewhere to get a reptile/amphibian fix! Even though I am only able to help out in a small way, I am looking forward to helping share exciting amphibian and reptile news with Alaskan herp enthusiasts.

We are always looking to improve our newsletter, and want to make it enjoyable and interesting for our readers. If you

have any suggestions or contributions, please do not hesitate to contact me at wendygholman@gmail.com.

You will find a new section in this edition called *Traveler's Corner*. If you have stories and pictures from your herp adventures, please send them in to be included in a future edition of the newsletter.

Enjoy, and happy holidays!
Wendy Holman

Interested in current research on Wood Frogs in Alaska?

Mari Reeves (USFWS) and co-authors published a study entitled *Localized Hotspots Drive Continental Geography of Abnormal Amphibians on U.S. Wildlife Refuges*, in the online journal *Plos One* in November, 2013. This publication brings attention to three regions in the country containing high concentrations of abnormal amphibians – one of those regions is located in Alaska. To read more about this study, go to www.plosone.org and search the title of the article.

Anchorage Daily News published an article on Reeves' study on December 24, 2013. The article can be found at:

<http://www.adn.com/2013/12/24/3245721/scientist-s-find-that-alaska-has.html>



A Wood Frog in Nova Scotia, Canada. Photo by Wendy Holman.

TOXIC NEWTS - The Next Step: A Collecting Trip to Southeast Alaska

Dietrich Mebs, PhD, Professor
University of Frankfurt, Germany
mebs@em.uni-frankfurt.de



The Rough-skinned Newt (*Taricha granulosa*) in Southeast Alaska

As mentioned in the last Newsletter, the rough-skinned newt *Taricha granulosa* contains tetrodotoxin (TTX) in its skin, a toxin which has been discovered originally in marine pufferfish (Tetraodontidae). However, the toxin levels in the newts are highly variable, ranging from zero in some Canadian populations (British Columbia) to extremely high concentrations in specimens from Oregon or California.

Southern Alaska is the most northern distribution range of *Taricha granulosa*. Therefore, it is most interesting to find out, whether these newts are toxic or not. Beginning of June I started a collection trip and flew to Ketchikan Island, S-Alaska, via Seattle. Joshua Ream had provided hints where to find the newts. The local biologist of the US Forest Service also suggested various locations. It was cold and rainy, proper conditions for newts I assumed. But it turned

out to be very difficult to find any. All the small ponds, peat-bogs etc. I visited were empty. Was it still too early, now in the middle of the year? Three days of frustrating search had passed when I went up to a hill at the end of the main road at the eastern end of the island. A steep road led to the Silvis Lake. Walking through slippery mud and heavy rain made this excursion exhausting and less pleasant. But at an altitude of about 250 m NN when visiting a small pond next to the road, I found them: At least some 20 *T. granulosa* were swimming in 20-30 cm deep cold water of 10 °C. I collected easily 5 of them and few others in another pond several 100 m further up the road.

Wrangell Island was the next location to visit. But here also the same situation: Three days of intense search and just one newt which was slowly moving over the *Sphagnum* bog to the next pond. All in all the yield of my trip was a bit disappointing.

On my way back to Germany I went to Oregon. Near the coast in the outskirts of Florence I collected again several newts that I had discovered in a small lake one year ago.

In the meantime Joshua had collected several newts in the Stikine-River area. He sent me the alcohol extracts of the preserved specimens and

together with the extracts of the newts I had collected (I had to sacrifice them for scientific purpose, they have been deposited in the Senckenberg Museum, the Natural History Museum in my home town Frankfurt). I evaporated the extracts to dryness and sent the material to my colleague Dr. Mari Yotsu-Yamashita of the University of Sendai, Japan for further analysis.

Recently, I received the results of Mari's toxin analyses of the newt extracts. Most of the Alaskan *Taricha* specimens exhibited very low levels of TTX, but only one showed high concentrations of the toxin comparable to values of newts from Oregon. This is puzzling raising again the question of the biogenetic origin of the toxin. Is it acquired via the food chain or is it synthesized by the newt? I have no answer at the moment and hope that breeding the newts from Oregon will show whether the offspring are still toxic or not. Perhaps they don't need the toxin to be protected from predators like snakes, as has been shown by Brodie's group demonstrating an evolutionary arms race between the newt and garter snakes (*Thamnophis* spp.) which become toxin-resistant in areas where the newts are highly toxic. But it is still an open question whether these snakes exist in S-Alaska.

Stikine Research Update

By Joshua Ream



Joshua Ream processing a Columbia Spotted Frog at the edge of a pond in June of 2013. The pond is located near Red Slough, the Canada border, and the Stikine River. Photograph taken by Seth Perry.

The newsletter is really a great opportunity for me to continually share updates on my ongoing amphibian research in the region of the Stikine River in Southeast Alaska. This work has been ongoing for several years as part of my interdisciplinary doctoral program at the University of Alaska Fairbanks (UAF). For this I am using Local and Traditional Knowledge (LTK) to enhance datasets on amphibian populations. I have also been conducting systematic surveys over the past couple of years with the help of my volunteer and your Vice-President, Seth Perry. Much thanks to Seth!

For this update I really just want to share some amazing

photographs from the 2013 sampling trip in early June. The Stikine River is a spectacular place and as I've mentioned in previous editions, this river system is suspected to be home to all six of Alaska's confirmed extant native amphibians. To date the only one that I haven't been able to locate is the infamous Northwestern Salamander, a species for which relatively little is known in terms of distribution and abundance in Alaska.

During a recent trip to Petersburg I had the wonderful opportunity to present my preliminary findings three separate times in the community, once to the staff at the Alaska Department of Fish and Game, once to the public at the city's fabulous new library, and once to a group of excited and energetic third graders. Members of the public were seemingly quite excited for this presentation and many attendees offered insights and observational data that had not been previously collected!



A Long-toed Salamander collected near a beaver dam along Paradise Slough in June of 2013.



A Rough-skinned Newt collected near a beaver dam along Paradise Slough in June of 2013. Photograph taken by Joshua Ream.

An interesting side note for the Stikine is the mystery of garter snakes. While most people swear that there are no snakes in the region (or in Alaska for that matter), some individuals report numerous encounters over the years. One credible biologist formerly stated that "I hope there is no doubt in anyone's mind that there have been snakes in Alaska, I saw several in the mid-1970s on the Stikine." Still, no photographic or organismal vouchers (besides those that were determined to have been released pets) have surfaced. On my trip to Petersburg, at least two residents relayed stories of garter snakes on the mainland, on Kupreanof Island, and even in downtown Petersburg!

The mystery of uncommon animal encounters in the region is not restricted to snakes. While it is not a herp, chipmunks recently entered this mysterious realm. One resident told of chipmunks in downtown Petersburg and was able to snap a photograph of the animal. Apparently this was not the first time that these have been found on Mitkof Island! The mystery really lies in whether the animals travelled down the Stikine (there are northerly natural populations in British Columbia) or if they arrived as cargo or by intentional human introduction. At least in this case, we have a picture!



A chipmunk photographed in Petersburg on November 16th, 2013. Photograph taken by Karen Cornelius.



A Wood Frog, Columbia Spotted Frog, and Boreal Toad collected at Shakes Hot Springs in June of 2013. Photograph taken by Joshua Ream.



A Boreal (Western) Toad on Sergief Island in June of 2013. Photograph taken by Joshua Ream.

On a related note, it is really cool that AHS has been able to have such a presence in the Stikine region. Beyond the scope of my graduate project, Seth and I are currently planning to continue our surveys into perpetuity for the sake of the discipline. The AK Dept. of Fish and Game has offered some support (travel tagalongs to reach remote locations) and cabin use. We will also continue to work with the US Forest Service for permission to place semi-permanent coverboard transects in the Stikine-LeConte Wilderness. In addition, we plan to look into the idea of adopting under a federal lease, a Forest Service cabin that is currently on the chopping block due to funding.

Enjoy the pictures!



Joshua Ream processing a Columbia Spotted Frog in a shallow wetland near Red Slough, the Canada border, and the Stikine River in June of 2013. Photograph taken by Seth Perry.



A group of Rough-skinned Newts captured in a minnow trap within a warm spring adjacent to Twin Lakes in June of 2013. Photograph taken by Joshua Ream.



A Long-toed Salamander collected near a beaver dam along Paradise Slough in June of 2013. Photograph taken by Joshua Ream.

LEATHERBACK SEA TURTLE SIGHTING!

By Marty Reedy, USFWS



Leatherback Sea Turtle observed by Marty Reedy and Natalie Monacci on 09/13/2013. Photograph taken by Natalie Monacci.

On September 13, 2013, the US Fish and Wildlife research vessel, *Tiglax*, was supporting the Gulf of Alaska Integrated Ecosystem Research Program (GOAIERP) scientific survey along the Gulf of Alaska.

Survey conditions were excellent with variable winds at 3 knots with 100% cloud cover and a balmy 55°F air temperature. The lightly rippled sea surface made for easy viewing.

At 3:56PM (AKDT), an unusual object was sighted simultaneously by seabird observer Marty Reedy (USFWS) and scientist Natalie Monacci (University of Alaska, Fairbanks).

At first glance, the animal seemed to be a Stellar Sea Lion (*Eumetopias jubatus*). But, then the head gave way to an odd looking back that looked to be more indicative of a whale species. As we drew closer, we saw it for what it really was – a turtle.

Really.

The ridged back left no doubt that this was a Leatherback Sea Turtle (*Dermochelys coriacea*). One source indicates that there have only been 19 sightings of this endangered species in the Gulf of Alaska between 1960 and 2007, making it the most common sea turtles in Alaskan waters prior to 1995 (AKDF&G website).

At N 58.332664/W 139.8125, the position of the turtle places it right on top of the continental shelf between Yakutat and Cross Sound (Juneau) and about 118km from the coast.

This was quite the sighting for all of the crew and scientists – all seasoned Gulf of Alaska seafaring veterans of whom none had ever seen a turtle at sea before.

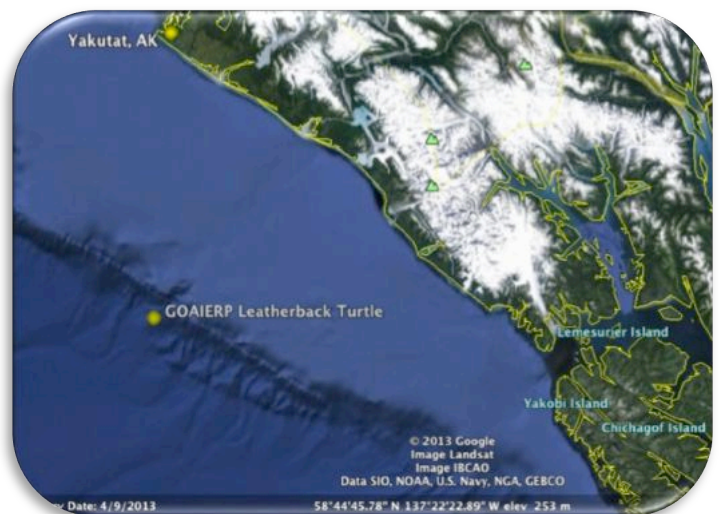
Sighting data for Leatherback Sea Turtle:

TIME: 09/13/2013 – 1556hrs AKDT

LOCATION: N 58.332664
W 139.8125

SST: 14.7C

SALINITY: 31.7PSU



A note from the desks of AHS:

Please look for the next addition of the newsletter for more information on sea turtles in Alaska!

TRAVELER'S CORNER

Let's spice up Alaskan winter!

Welcome to a new section of the AHS newsletter! Have you traveled to the lower 48 or abroad and have great stories or pictures of your reptile and amphibian adventures? Please share them with us! We will include one or two stories (or more if many pictures and stories are shared!) from your travels in each addition of the newsletter. Thank you to this edition's contributors: Brian McCaffery and Falk Huettmann.

A Trip to the Great Smoky Mountains - The Salamander Capital of the World.

By Brian McCaffery



Black-bellied Salamander.

The Salamander Capital of the World--that's how some dub the Great Smoky Mountains. Based on my visit there earlier this fall, I certainly won't question that Appalachian appellation. My wife and I first visited the Smokies in 2006, and despite being an ornithologist by vocation and a birder by avocation, I spent far more time searching for salamanders than I did focusing on birds.



Black-bellied Salamander.

When we returned in September 2013, I did the same, and spent almost all of my time looking for herps along the branches and rivers of Great Smoky Mountains National Park. We found Northern Green Frog, Eastern Garter Snake, and Northern Watersnake, but by far the most abundant herps were the salamanders. On more than one occasion, we found dozens of individuals along just a few dozen meters of stream habitat. Among the most common species were Blue Ridge Two-lined, Black-bellied and Northern Dusky Salamanders. Some experts split the latter into two distinct species; however, those two forms are known to

hybridize on the Tennessee side of the mountains at the very elevations we were visiting.

We found individuals with phenotypes resembling the two "pure" forms as well as many individuals of uncertain lineage. We spent relatively little time turning over rocks and logs, and instead simply scanned along cascades, leafy pools, and stream margins in search of salamanders "hiding out in the open." As a result, we were treated to repeated intimate vignettes of salamanders behaving naturally--hunting by ambush, snagging prey, and retreating to cover when danger threatened.



Northern Dusky Salamander.

Travelers from the Tropics: Sea Turtles

By Mark Spangler, Falk
Huettmann, Stephanie Duenas



*A nesting green sea turtle.
Tortuguero National Park. Photo by:
Mark Spangler*

What better subject for the "Traveler's Corner" than the graceful sea turtle? There are seven species of sea turtle in the world, and among them are some of the greatest travelers in the animal kingdom. One species, the leatherback sea turtle, regularly makes transoceanic migrations of 6,000 miles or more, and is even occasionally spotted in Arctic Alaskan waters. So what else do sea turtles have in common with Alaska?

For over ten years, University of Alaska Fairbanks (UAF) associate professor Falk Huettmann has made his own summer migrations to the tropical forests of Central America. There he leads courses at two separate field

stations owned and operated by the Maderas Rainforest Conservancy (MRC; maderasrfc.org). At sites ideally located on Nicaragua's Ometepe Island and northern Costa Rica's lush Caribbean slope, Professor Huettmann has instructed field courses on such biological topics as cloud forest ecology, GIS mapping, and climate change. After three years of preparation, this past summer, however, he offered his first course in sea turtle ecology. Joined by California student Stephanie Duenas, Hungarian teaching assistant Laszlo Kover, and Russian independent investigators Dmitry and Maria Korobitsyn, this multinational team studied sea turtle mating and nesting behavior along both the Pacific and Caribbean coasts at four different nesting beaches. In roughly one month's time, the team was able to successfully complete five separate projects pertaining to sea turtles and the beaches on which they nest. Additionally, they participated in beach patrols and observed three of the five sea turtle species known to nest in all of Central America. The metadata for each project is globally available online via the institutional repository dSPACE at UAF.

Another conservation organization working towards



*A hatchling leatherback sea turtle.
Pacuare Nature Reserve, Costa Rica.
Photo by: Stephanie Duenas*

a better understanding of, as well as an increased protection for, Central America's sea turtles is the Sea Turtle Conservancy (STC; conserveturtles.org), formerly the Caribbean Conservation Corporation. The STC was established in part by the late conservationist Archie Carr, the man who pioneered the first sea turtle monitoring program in the world. Mr. Carr's efforts with the STC would also ultimately lead to the creation of a national park at Tortuguero, Costa Rica, the largest green sea turtle nesting site in the entire Western Hemisphere. Mark Spangler, a former field school student and research colleague of Professor Huettmann and the MRC, and, more recently, his prospective graduate student at UAF, spent the past three months (Aug-Oct) participating in the STC's green turtle program. The green turtle program is a research assistantship designed to carry on the monitoring efforts of Archie

Carr, which were started in Tortuguero more than fifty years ago. Along with fellow research assistants from the United States, Spain, and Colombia, Mark patrolled the beach by night in order to measure and tag nesting sea turtles, as well as monitored nests daily in order to determine their fate and calculate hatchling success. Furthermore, Mark and the other RAs visited the schools and the public library at Tortuguero weekly as environmental educators and worked with the public in

various community outreach events.



*A mating pair of olive ridley sea turtles. Playa La Flor Nature Reserve, Nicaragua.
Photo by: Dima Korobitsyn*

All seven species of sea turtle are threatened with extinction.

Responsible tourism not only supports sea turtle conservation but also supports the impoverished communities often associated with nesting beaches. So if you feel the need for an escape from the coming Alaskan winter, pack up your bags and head to a tropical beach filled with sunshine and nesting sea turtles! Eventually, one goal of this work is also to clarify the role of migratory sea turtles in Alaskan waters and for a conservation management status.

Dragonfly Festival

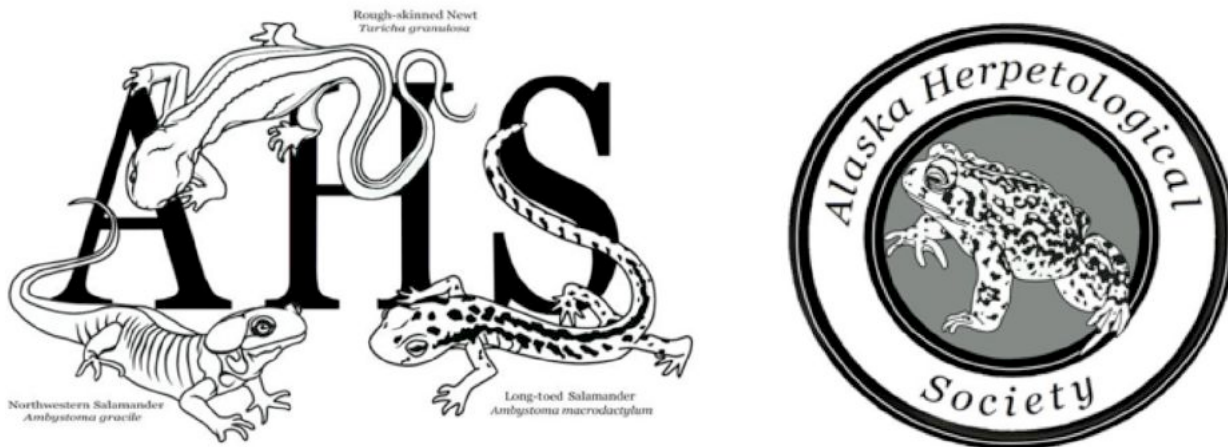
AHS was in attendance at the Dragonfly Festival at Creamer’s Field in Fairbanks this summer. Joe and Allyssa Morris ran a table that attracted lots of curious kids. The turn out was great, with 300 people participating. A great time was had by everyone who participated, including Joe and Allyssa!



WHAT'S HAPPENING?

New AHS Logos

Two new logos were designed for AHS by member Lewis Dischner and AHS Secretary Amanda Gibson. The logos are featured on the new t-shirts offered by AHS. The front pocket logo shows a Boreal (Western) Toad, and the back logo includes Alaska's three confirmed salamander species: Rough-Skinned Newt, Long-toed Salamander, and Northwestern Salamander.



Check out the NEW t-shirts!

These awesome new t-shirts were designed by member Lewis Dischner and AHS Secretary Amanda Gibson and feature both of the new AHS logos. They are made from high quality Hanes 6.1oz 100% preshrunk ring-spun cotton. Please help support AHS by purchasing one or more today! T-shirts are available for purchase at www.akherpsociety.org/apps/webstore.



AHS Updates - Second Annual Business Meeting – October 27, 2013

The second Annual Business Meeting was held through teleconference on October 27, 2013.

Members voted to adopt the following resolutions:

- Resolution 2: Resolution to Endorse, Adopt, and Submit an Alaska Board of Fisheries Proposal to Address Amphibian Imports and Releases.
- Resolution 3: Resolution to Endorse, Adopt, and Submit an Alaska Board of Fisheries Proposal to Address the Collection of Wild Amphibians and Permits for Amphibian Possession.

The following bylaws were revised or added:

- Bylaw Revision, Article III, Section 1: Full membership to the Society shall be available to any individual demonstrating an interest in herpetology. Only full members may hold elective officers in the Society and officially represent the Society on business pertaining to its functions. Full members must be sixteen years of age or older.
- Bylaw Addition, Article III, Section 4: Junior Membership: all members under the age of 16 will be considered a junior member and enjoy all membership benefits except for voting and elections or official business of the society.

The results of other items voted on by AHS members are as follows:

- Membership dues are to remain the same for the upcoming year (\$10/year).
- Dues for junior membership will be \$5/year.
- \$150 of the treasury will be spent on website renewal.
- AHS will commit \$200 from treasury toward research grants program.
- AHS will not participate in Alaska PFD Pick-Click-Give Program in 2015, but will reevaluate at a future date.

The AHS treasury balance was \$439.97 as of October 27, 2013, with pending deposits of \$209.40, for a treasury total of \$649.97



AHS membership is exciting!

Alaska Herpetological Society
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