

Issue One

THE

2018

ICELANDIC HORSE

Q U A R T E R L Y



Official Publication of the United States Icelandic Horse Congress
Member Association of FEIF (International Federation of Icelandic Horse Associations)



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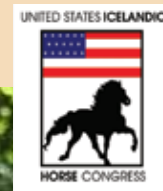
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2018 Breed Evaluations & Sanctioned Show



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May 23-24: Breed Evaluations with Marlise Grimm and Thorvaldur Kristjánsson | **May 25:** Young Horse Linear Description | **May 26-27:** Sport Competition



THE USIHC MISSION

- To promote the knowledge of the Icelandic horse within the United States and its correct use as a competition and riding horse.
- To keep a registry of purebred Icelandic horses in the United States.
- To facilitate communication among all USIHC members.
- To represent the United States in FEIF.

The U.S. Icelandic Horse Congress is a member of FEIF (www.feif.org), the International Federation of Icelandic Horse Associations, representing the national Icelandic horse associations of 21 countries. FEIF governs competition activities and regulates the breeding and registration of Icelandic horses throughout the world outside of Iceland.

The USIHC was formed in 1987 by representatives of the U.S. Icelandic Horse Federation and the International Icelandic Horse Association to meet the FEIF rule that only one association from each country is allowed to represent the breed.

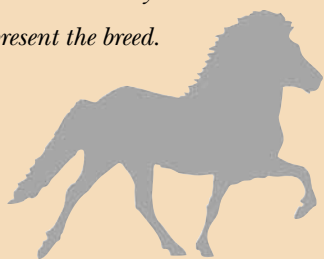


Photo by Jean Ervasti

W H Y J O I N T H E U S I H C ?

LEARN

As the owner or rider of an Icelandic horse, you chose a very special breed with its own culture and history. It is important to learn about the breed's unique traits, capabilities, and needs, so that you and your Icelandic horse will have a happy relationship and it will live a healthy and long life in a country far from its origin. As a USIHC member, you have a wealth of information at your fingertips and a personal connection to the best experts in the country.

You receive *The Icelandic Horse Quarterly*, a 52-page all-color magazine, four times a year. All issues since 2008 are indexed and available online.

You have free access to WorldFengur, the worldwide database of all registered Icelandic horses. About 450,000 horses, alive and deceased, are included, with pedigrees, offspring, ownership, and evaluation and competition results. Some horses even have photos and videos. WorldFengur is an invaluable tool for all Icelandic horse breeders and very interesting for the rest of us. Go to "Search Horses" on the USIHC website and find any US-registered Icelandic horse by its number, name, or farm name to link to WorldFengur.

You can take part in—and even help create—educational seminars and teaching programs. For example, the USIHC Education committee developed and now administers the Riding Badge Program for pleasure and competition riders of all ages. On the USIHC website you can find links to certified trainers who are USIHC members and can help you get the best out of your Icelandic horse. The Education Committee also offers Sport Judges Seminars for those wanting to learn more about show rules and how to judge competitions. A \$1,000 grant is available to members who complete their certification to become national or international judges.

The USIHC also has a scholarship fund for members who complete their certification to become national or international judges.

CONNECT

Icelandic horses are social animals, and so are their people. The USIHC is the umbrella organization of Regional Clubs all over the U.S.: There are currently 13 active clubs. Find the regional Icelandic riding club in your area through the USIHC website, so that you and your horse can

ride with friends. The USIHC Board has set aside funding for regional clubs to host clinics, schooling shows, sanctioned shows, young horse evaluations, and full breeding shows.

USIHC Youth members can apply to participate in the American Youth Cup or the international FEIF Youth Cup or Youth Camp. These are great events designed to bring young riders together for a week of fun, learning, and competition.

Through the USIHC website, you can sign up for RSS feeds for the Events Calendar or web updates. You can check the membership list to see if your friends are members and when your own membership expires. And you can stay connected through the USIHC Facebook page.

COMPETE

The Icelandic horse has international competition rules: You can compete in the same classes and under the same rules in any of the 19 FEIF member countries and compare your progress with competition riders from around the world.

The USIHC Competition committee adapts these international FEIF rules for American venues and special circumstances, publishing a new set of USIHC Competition Rules each year. These are available on the USIHC website, along with all the tools needed to put on a sanctioned show, such as entry forms, judging forms, judges' cards, and announcers' cards. (These tools are also useful for organizing fun shows and schooling shows.) Also on the website are lists of recommended and prohibited tack and equipment, track sizes, and other information for competition riders.

Sanctioned shows and schooling shows are eligible for USIHC Funding; contact the Competition committee. Show organizers have access to the IceTest software so that eligible scores immediately appear in the U.S. National Ranking; qualified shows can also send scores to the FEIF World Ranking list. Scores are posted on the USIHC website for everyone to see and compare.

Only USIHC members can join the U.S. team at the Icelandic Horse World Championships, held in a FEIF country every other year. If you hope to compete at an international level, see the team recommendations and requirements on the USIHC website. Tryouts for the team are open and are National Ranking events: Anyone can ride for scores and to get feed-

back from an international judge, whether or not you intend to compete in the World Championships.

PROMOTE

USIHC members promote the Icelandic horse at many equine expositions around the country. The USIHC provides display materials, including brochures and copies of the *Quarterly*. The USIHC Breed Ambassador program rewards members who take their Icelandic horses to all-breed events and shows.

Trainers, breeding farms, and trekking barns can promote their services through the USIHC Farm List in the *Quarterly* and on the website. Stallion owners can promote their stud services through the online USIHC Stallion Book.

And everybody, members or nonmembers, can advertise in the *Quarterly*.

REGISTER

Whether you plan to breed one mare or have a breeding farm, the USIHC Registry and the Breeding committee provide information and services to help you. The Icelandic horse is one of few breeds with international evaluation standards, so that breeding horses from all over the world are judged on the same 10 points of conformation and 10 points of ridden abilities, and all scores are entered into the WorldFengur database. That allows you to compare the quality of your breeding stock with Icelandic horses around the world, both past and present.

USIHC-sanctioned breeding evaluation shows for registered adult horses ages four and up are scheduled by USIHC Regional Clubs and private farms. Breeding shows and seminars are eligible for USIHC funding. All rules and regulations are supplied by the Breeding committee from the international FEIF rules and are available on the USIHC website. Regional Clubs and private farms can also organize Young Horse Assessments for foals to three-year-olds. These assessments also qualify for USIHC funding; contact the Breeding Leader.

In accordance with FEIF rules, the

USIHC has adopted stringent tests before a foal can be registered as a purebred Icelandic horse. You can be sure of the parentage of any registered Icelandic horse and know that your registered foals have proof of their value.

You don't have to be a USIHC member to register your Icelandic horse, but by becoming a member you help support this vital USIHC program.

INNOVATE

The USIHC is a member-driven organization. The more active and involved our members are, the stronger the USIHC becomes. Do you have an idea for a project or event that will support the Icelandic horse in America?

Requests for funding for special events and programs can be submitted to the USIHC board of directors and will be reviewed on a case-by-case basis. Contact the USIHC president for more information.

JOIN US

There are only about 5,800 registered Icelandic horses in the U.S. and the USIHC, at about 625 members, is still a small "pioneer" organization compared to our counterparts in Iceland and Germany. Our committee members and board of directors are all volunteers. Please join us so that the USIHC can, as FEIF's mission states, "bring people together in their passion for the Icelandic horse"!

Yearly membership for an adult is \$45; youth memberships are \$35; or for a family (two adults, unlimited kids) it is \$65. Mail in the form in this magazine or join online at www.icelandics.org/join

QUESTIONS?

USIHC Board members and Committee chairs are here to answer them. For general questions, call or email our information desk or check the website.

Toll free: 866-929-0009
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FEIF'S MISSION: FEIF BRINGS PEOPLE TOGETHER
IN THEIR PASSION FOR THE ICELANDIC HORSE



ICELANDIC HORSE

Q U A R T E R L Y

Official Publication of the United States Icelandic Horse Congress (USIHC), a member association of FEIF (International Federation of Icelandic Horse Associations).

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Quarterly Committee:

Margot Apple, Andrea Brodie, Nancy Marie Brown (co-editor), Leslie Chambers, Alys Culhane, Nicki Esdorn, (co-editor), Eileen Gunipero, Emily Jacobs, Constance Kollmann, Gabriele Meyer, Celeste Newcomb, Kara Noble, Anne Owen, Alex Pregitzer, Chris Romano, Judy Strehler, Nancy Wines-Dewan, Lynn Wiese

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Graphic Design: James Collins

On the cover: Photographer Shaila Ann Sigsgaard captured three fancy mares “just being horses,” mud and all! Ljufa from Destiny (US2002203834) is the chestnut, owned by Jane Thomas. The palomino, Birta from Icelandic Horse Farm (CA2000210011), was sent to Kentucky by California breeder Heidi Benson. The beautiful young pinto in the middle, Nikita from Sæstöðum (US2015205087), is her foal by the famous stallion Sporður frá Bergi (US2005104746), who stands at Léttleiki Icelandics.

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ANNUAL MEETING

The 2018 USIHC Annual Meeting was hosted by the Klettafjalla Club in Denver on Saturday, January 13. All nine board members attended, along with 36 members who traveled from as far as Vermont and California. The committee and officer reports are available at www.icelandics.org/bod/minutes. The meeting began with an introduction of each board member and their new committee responsibilities, as outlined below. Each committee report also details the role of the committee chair.

COMMITTEES

As presented in a letter to the membership on January 5, 2018, late last year the newly elected USIHC board of directors decided to revisit how committees are structured. An excerpt from the letter follows:

“The USIHC BOD recognizes the importance of our committees and the cadre of volunteers that give of their time. These committees are the ‘engine’ of our organization, and deserve our focus and direction.

“We were overdue to revisit the goals, structure, duties, and priorities of each committee. Over the past month, we have been gathering information from each committee chair to help us in this task. It is our intention that by defining and refining these duties we provide a transparent working document providing direction, which allows our committee members to better focus and maximize their energies, and our members to know where we are focusing our time, energy, and funds.

“Prior to 2006, the USIHC policy was for committee chairs to be chosen from the board members, the BOD has decided to resume this practice to improve communication between committees and the board. We would like to emphasize that the role of all chairs is primarily to facilitate discussion and communicate proposals formed by committee consensus. Care must be taken to include point persons and timelines for all proposals submitted to the board for consideration.”

At the Annual Meeting the reason-



The USIHC has partnered with Horses of Iceland, which provides free photos and materials for marketing the Icelandic horse.

ing behind this change was discussed at length, and the board made clear that it was not meant to discount the contributions of any previous committee chairs, only to acknowledge flaws in the structure of the organization that made connecting with the board too difficult. With a board member taking active responsibility for each committee, that divide should be bridged.

The Quarterly committee will continue to have a board liaison (Leslie Chambers, who is also a member of the committee), rather than having a board member as its chair, since it was felt that the magazine needed to be independent of the board to remain the voice of the entire USIHC membership.

GUEST SPEAKER

The guest speaker at this year’s meeting was Kristina Stelter, who entertained the group with an illustrated lecture on her master’s degree research into the place of the horse in Viking society. In Norway, she found, the horse was just another farm animal—the main form of transportation was the boat. But when the Vikings came to Iceland, “that all changes.” Iceland’s rivers were not navigable, nor were there large trees with which to build boats. The Viking’s boat-culture became a horse-culture in one generation.

“Horses became the glue of the new nation,” Kristina explained. And since long distances had to be crossed, the Icelanders wanted a luxurious ride. The so-called “gaited gene,” DMRT3, which all Icelandics have in either one or two copies, seems to have first arisen in York, England during the Viking age. Vikings on their way to Iceland discovered the smooth-riding English horses there and took some to their new settlement, where they selectively bred for the gaits we now call tölt and pace.

Along with gaitedness, the Vikings in Iceland also bred for color—specifically for silver dapple, a color mutation that first shows up in the Viking Age. The silver gene, Kristina explained, is detrimental to horses in climates with mosquitoes. Insects bite darker colors, so horses developed darker manes to lure them away from flesh. “The gene is recessive, so it would have been bred out if the Vikings



The NEIHC Regional Club and Horses of Iceland shared booth space at the Massachusetts Equine Affaire in November. Their videos were especially popular.

hadn't selected for it." With its lack of biting insects, Iceland was the perfect place for the silver gene to flourish.

Kristina also wrote about her research in Issue Four 2016 of the *Quarterly*.

TREASURER'S REPORT

Introducing the 2017 Treasurer's report, treasurer Kari Pietsch-Wangard pointed out that our overall income for 2017 was 5% less than in 2016, while our losses were 50% higher than last year. The net loss for the year was \$14,904.73.

"Overall, we are still very healthy," Kari explained, "but this year we spent down 12% of our treasury. If we keep this up, in less than ten years we'll be underwater."

In deciding the budget for 2017, in a meeting planned for January 23, Kari suggested, the board needs first to agree on the level of deficit spending they are comfortable with.

Discussion focused on increasing USIHC income, rather than reducing expenditures, by increasing memberships and the number of horses registered.

REGISTRAR'S REPORT

Will Covert presented the report for registrar Ásta Covert. In 2017, a total of 98 horses were registered by the USIHC and recorded in WorldFengur; 166 registrations were transferred to new owners. Of

these, 36 were foals under 12 months old (compared to 38 in 2016), 25 were domestic bred (compared to 11 in 2016), 31 were imported from Iceland (compared to 19 in 2016), and 4 were imported from Canada (compared to 6 in 2016). In all, 22 more horses were registered and 9 more registrations were transferred than last year. The total number of USIHC-registered horses in WorldFengur as of December 31, 2017 was 5,977, of which 3,243 are domestic bred.

Discussion focussed on ideas to find and register currently unregistered Icelandic domestic bred horses in the U.S. and imported horses whose registrations have not been transferred to their U.S. owners.

AFFILIATED CLUBS

As committee chair Leslie Chambers noted, the USIHC began 2017 with 12 Regional Clubs. We lost one club (Ohio Valley), but gained three Regional Clubs (Glitfaxes, Sirius, and Toppur) and one Activity Club (Gæðingur), which necessitated the committee's own name change. The clubs together total 667 members.

Early this year, FEIF redefined what they consider "membership," Leslie explained. The new definition allows the USIHC to count all members of Affiliated Clubs as "members" whether or not they pay dues to the USIHC, as they are part of



AIHA members Janet Mulder riding Prins from Arctic Arrow and Mia Mulder riding Kappi frá Hellulandi at the Alaska Sanctioned Show in September. Photo by Hanna Dilts.

the "U.S. Icelandic horse community." The number of "members" in this community translates into the number of votes the U.S. has in FEIF.

To ensure the most accurate census, clubs are now asked to renew in August of each year (close to the FEIF deadline), and to provide a list of their members that can be cross-checked against the USIHC dues-paying membership, so that no one is counted twice.

"This fall," Leslie said, "the USIHC reported 1,008 members, once all the lists were combined and duplicates removed. Last year we could only report about 650 members. This moves us up to three votes in FEIF."

The new "membership" number is only due to the change in the FEIF process, she emphasized, not to any growth in actual USIHC memberships. "Data does suggest we have a large number of folks who belong to an affiliated club and not the USIHC, and the converse—many who belong to the USIHC and not to an affiliated club."

Leslie also reported that 10 of the 14 Regional Clubs took advantage of the USIHC's Regional Club Clinic Support program (Policy 31) in 2017. The Alaska IHA held two clinics in Wasilla, AK; Flugnir held a clinic in Proctor, MN; the Frida club held two clinics in Middleburg, VA; Glitfaxes held a clinic in Fairfield, CA; Hestafolk held two clinics in Bellingham,



The youngest competitor at the CIA Open Fall Show in Santa Ynez, CA was Bella Covert riding Þór frá Litlu-Sandvík in the lead line class. Photo by Will Covert.

WA; Klettafjalla held two clinics in Oakley, UT and Brighton, CO; the NEIHC held two clinics, in Hudson, NY and Granby, CT; the NWIHC held two clinics, in Trout Lake, WA and in Ellensburg, WA; Saint Skutla held a clinic in Mendon, NY; and Toppur held two clinics in Des Moines and Peru, IA.

“There have been only positive responses from the Regional Clubs whose members have benefited from this educational initiative,” Leslie noted. Clinic themes ranged from enhancing basic skill sets to competition preparation, including “Dressage to Improve Gaits,” “Tölt in Harmony,” “Improving Tölt on the Trail,” “How to Communicate with Your Horse,” “From Ground to Saddle,” and “The Horse as a Mirror of the Rider.”

The USIHC paid out \$8,500 for this program in 2017. No more than two grants per club were approved, each at a maximum of \$500.

Discussion focused on how popular and appreciated the clinic support program has been. In the future, Leslie said, she hopes to use the Affiliated Clubs email list more as a “talking ground,” to share information from club to club. “We’re all here to help each other,” she said.

There were several suggestions from the floor on how to convince Regional Club members to join the USIHC, including a membership list, a list of mentors, or a membership committee. Replied Leslie, “The action needs to come from the local level. The clubs know who is and is not a USIHC member. They need to urge them more to join—and to match that with personal contact.”

“In our club,” said Klettafjalla president Kristina Behringer, “it’s apparent in everything we do that we work together with the USIHC. We use our logo and the USIHC’s logo together. We are partners.”

“Klettafjalla is the exemplar in this, as in many other things,” Leslie said. “I always tell new clubs to check out what Klettafjalla is doing if they want to know how to run a Regional Club.”

BREEDING

Linda Templeton praised outgoing committee chair Kydee Sheetz for the com-

mittee’s accomplishments in 2017. The Gæðingur Activity Club was established to create a setting for all breeders to connect and share. Three Young Horse Linear Description events took place, in Kentucky, New York, and Wisconsin. Two Evaluation Clinics were held, a breeding evaluation clinic with international breeding judge Herdís Reynisdóttir in New York, and one in Wisconsin in which international breeding and sport judge Silke Feuchthofen discussed all three assessment forms for the Icelandic horse: Breeding Evaluations, Young Horse Linear Descriptions, and the new Riding Horse Profile.

Three Breeding Evaluations are planned for 2018: Kentucky (May 23-24), Iowa (September 6-7), and New York (September 10-11).

“When I was asked to take the Breeding chair,” Linda said, “I went to FEIF for guidance. Their webpage ‘Breeding Goals—The Ideal Horse’ is as good as it gets.” As chair, Linda hopes to further the FEIF breeding goals in the U.S., to create interest in and knowledge of the FEIF breeding evaluation system, and to increase communication on breeding issues. “Because we’ve had so few breeding shows in this country, there’s a real need for education. A lot of people don’t understand why a horse should be evaluated.” Her goal is to communicate on breeding issues on a monthly basis.

EDUCATION

Among the highlights of the Education Committee’s year was the publication of the Basic Riding Badge textbook, reported chair Alex Dannenmann. (See the article in Issue Two 2017 of the *Quarterly* on how to buy a copy.) This year Riding Badges 1 and 2 were earned by Virginia Lauridsen in Iowa, with Guðmundur Skúlason as instructor and examiner. In Alaska, Robin Marquiss, Susan Tilly, and Jenny Wappett earned their Level 1 badges, and Kerry Wappett, Wells Wappett, and Mia Mulder earned Level 2; their instructor was Bernis Willis, and the examiner was Janet Mulder.

The fourth Sport Judge Seminar was held by Þorgeir Guðlaugsson, the chief judge at the World Championships, in New York in September. Jana Meyer and

Freija Thye earned their Sport Judge B-licenses. The next Sport Judge Seminar will be held in April 26-29 at Red Feather Icelandics in Trout Lake, WA.

The committee also updated the requirements to become a USIHC sport judge, providing a clear structure with logical, consecutive steps that meets the needs of the U.S. To keep their license, USIHC sport judges must take at least one educational seminar every three years. The seminar can be local, national, or international, but must be pre-approved by the USIHC education leader, and must cover a minimum of 16 hours. Judges must also spend a minimum of two days judging or scribing at a USIHC-sanctioned or FEIF World-Ranking show, in a time frame of two years.

New license renewal requirements for trainers were also developed. To be listed on the USIHC website, trainers will need to take one educational seminar every two years. The seminar can be local, national, or international, but must be pre-approved by the USIHC education leader. It must cover a minimum of 16 hours and the topic must be applicable to the work of an Icelandic riding instructor or horse trainer.

Goals for 2018 include supporting trainer education, including the newly translated Knapamerki materials from Iceland into U.S. educational programs, and building judges’ and trainers’ networks to share input and information.

Discussion focused on ways to adapt the current trainer certification program, which is based on the German system, to better suit the U.S. market. “Currently we have to fly in an examiner from Germany for three weeks, and we need a second examiner at the end. It’s time intensive and costly and difficult to organize—but it is possible.” Three trainer seminars have been held in the U.S., in 2008, 2009, and 2010. “If we set up our own system,” said Alex, “we can make our own rules.” Some ideas included using the American graduates from Holar and our FEIF-certified trainers as examiners, having part of the test online, and having the examiner come to the trainer’s facility.

LEISURE

Outgoing Leisure Committee chair Linda Templeton congratulated the Klettafjalla Club's team for reaching the (virtual) Statue of Liberty and completing all 10,000 miles of the Sea 2 Shining Sea circuit. "Congratulations to this team that has pulled together and cheered each other (and other teams) on with enthusiasm and good sportsmanship." In second place is the NEIHC Team, with Hell's Icies in third. Among individual riders, Jeannene Heinrich is in first place, with an impressive 1001 miles.

The Sea 2 Shining Sea program is the Leisure Committee's reinvention of the Pleasure Riding Program. Altogether, 71 riders participated, with seven teams and 13 individual riders covering 35,209 miles (or 5,030 hours in the saddle) since the program began on July 4, 2017. Six "Rider of the Month" awards have been given, to Jeannene Heinrich, Payton Black, Kristen Humble, Iris Heidelberg (twice), and Lisa McKeen.

The Leisure Committee will be continuing the Sea 2 Shining Sea program in 2018 (perhaps Klettafjalla will make the circuit twice?), under its new chair, Lori Cretney. The committee is, however, discussing some changes in the hour-to-mile conversion, the location and number of landmarks, and the awards and patches.

MAGAZINE

Quarterly committee co-chair Nicki Esdorn presented her yearly up-beat slideshow of photos from the previous four issues, set to the tune of *Ríðum sem fjandinn*, and co-chair Nancy Brown provided details on the committees' organization and accomplishments. The 19-member committee works independently and in an environment of trust and cooperation, guided by the USIHC mission "to promote the knowledge of the Icelandic horse within the United States and its correct use as a competition and riding horse."

In 2017, between 50 and 60 contributors per issue (over 10% of the USIHC membership) provided the exceptional content and editorial oversight that makes the *Quarterly* such an effective "face" of the USIHC. In

keeping with its goal of providing a two-way communication channel for the Board, the Committees, and the members, the *Quarterly* dedicated 104 of the total 208 pages printed, or exactly 50% of our content, to USIHC News and announcements, FEIF News, and Affiliated Club News. Paid advertising accounted for another 33 pages, up from 27 pages in 2016.

The e-Quarterly was posted each quarter about two weeks before copies went into the mail, and the issues were added to our online archive of back issues, which includes all magazines from 2008 to the present indexed by topic.

Six hundred copies of each issue were printed this year. Member households received 428-452 copies; 125 copies were included in Welcome Packets to new USIHC members. Contributors who requested extra copies received 1-2 free copies each. Members who requested copies for Promotion received 317 copies (down from 447 in 2016).

Finally, Nancy announced the winners of the USIHC's yearly Spaeri Youth Award, a collaboration between the Quarterly Committee and the Youth Committee. This award honors USIHC youth members under the age of 18 who contribute to the *Quarterly*. For 2017, the winners are Gray Strausser of Pennsylvania and Olivia Rasmussen of California for their reports on the 2017 American Youth Cup.

PROMOTION

The new co-chairs of the Promotion Committee, Emily Potts and Jessica Haynsworth, thanked their predecessor, Juli Cole, and designer Sherri Hoover, who attended the meeting, for the USIHC decals that were distributed to members in 2017. Two per household were sent with copies of the September *Quarterly*, and others included in Welcome Packets. "It's nice to give members swag to encourage a sense of pride and community in being a part of the USIHC."

In 2018, Em and Jess plan to use the committee to rebrand the USIHC to make it "more fun to be a part of." They are looking into updating the logo and finding new photos for the website

and brochures, as well as updating the FAQ, member benefits, and member renewal information on the web. They have started weekly features on Facebook and Instagram and plan to have an "active and up-to-date presence" on the USIHC website. They are compiling a Promotions calendar to help determine how many brochures and copies of the *Quarterly* might be needed for expos each quarter, and to help Regional Clubs share resources and information about expos. Finally, they hope to transition USIHC merchandise onto Zazzle to make it easier for USIHC members to purchase.

One success from 2017 that they plan to continue—and expand upon—in 2018 is the USIHC's partnership with Horses of Iceland. This professional promotional team from Iceland has prepared beautiful videos and brochures that are available for USIHC members' use free of charge. The Horses of Iceland team is also willing to work with clubs and individual farms to set up eye-catching display booths, to organize demos, and even to contribute to the costs of having an Icelandic horse presence at fairs and expos. Horses of Iceland also has a strong presence on Facebook and other social media. "Their vision aligns with our mission," said Jess. "This allows us to reach new audiences on a grander scale—including people who would never have otherwise seen an Icelandic horse."

SPORT

In 2017, the U.S. hosted 10 USIHC-sanctioned events, committee chair Will Covert reported: the CIA shows in Santa Ynez, CA in April and June; the World Championship tryouts by video; the Léttleiki shows in Shelbyville, KY in June and October—of which the second was a World Ranking event consisting of three separate shows with six judges; the NEIHC Open in Claverack, NY in June; the American Youth Cup in Santa Cruz, CA in July; the Flugnirkeppni in Eagle, WI in August; and the Alaska show in Wasilla, AK in September.

At year's end, our National Ranking Award Winners and their average scores were:

- T1: Ásta Covert 7.50
- T2: Ásta Covert 7.45
- T3: Laurie Prestine 6.45
- T4: Gabrielle Pittman 5.93
- T5: Alicia Flanigan 5.83
- T6: Jessica Blough 6.30
- T7: Hannah Bailey 5.75
- T8: Alicia Flanigan 5.70
- V1: Ásta Covert 7.55
- V2: Kathryn Love 6.35
- V3: Jessica Blough 6.05
- V5: Orianna Bradley 5.85
- V6: Alicia Flanigan 6.03
- F1: Ayla Green 6.60
- F2: Gabrielle Pittman 4.88

In the 2017 World Championships tryouts, Ayla Green, Chrissy Seipolt, and Jennifer Melville qualified for the U.S. team. Ayla Green and her horse Máir frá Kolgerði traveled from California to compete; they placed 28th in Five Gait, with a score of 5.10. Jennifer Melville and Feykir frá Ey I, who are based in Europe, took 45th in Four Gait (5.60) and 47th in Tölt T1 (5.00). Chrissy Seipolt had to withdraw Dreki vom Wotanshof due to lameness. The team leader was Katrin Sheehan. See our reports on the World Championships in Issue Four 2017.

YOUTH

The highlight of 2017 for the Youth Committee, said incoming committee chair Kevin Draeger, was the Second American Youth Cup, held in Santa Cruz, CA. The event, which Kevin participated in as a team leader, was a great success. Nineteen talented young riders spent a week learning about the Icelandic horse, improving their horsemanship, and creating important connections to other young equestrian athletes. See our report in Issue Four 2017.

The members at the Annual Meeting gave Heidi Benson, the organizer of the event, and Youth Cup attendees Payton Black and Maile Behringer, who were in the audience, a round of applause. During the discussion session, Heidi explained that she and Carrie Brandt had set up the AYC as a nonprofit organization and gave it a template to help make it easier for the next person to take on.

The 2019 AYC is already in the planning stages, although no location has been decided upon.

In 2018, the Youth Committee hopes to “light a fire to keep the USIHC growing.” Among other projects is coordinating the U.S. team at the FEIF Youth Cup, to be held in Sweden from July 28 to August 4. Applications and videos were due January 12, and the team was to be selected February 28.

BOARD MEETINGS

The USIHC board of directors met by conference call on October 12, November 16, and November 30, as well as in person on January 13 after the Annual Meeting, and again by conference call for the budget meeting on January 23. Complete minutes, including the monthly Treasurer’s and Secretary’s reports, can be found online at www.icelandics.org/bod/minutes.

Among topics not addressed at the Annual Meeting was the Board’s acceptance of Kara Noble’s contract to work on the USIHC website (on November 30), the adoption of the WorldFengur rule G5.3.6 concerning the naming of Icelandic horses (on October 17), and the announcement of the completion of the USIHC Blood Profile Project (on November 16), the results of which appear in this issue.



Hler frá Gullberastöðum shows off his Icelandic hairstyle at the Iowa Horse Fair, at top. Next, Ron Hoover and Saela from Beat’n Branch Icelandics compete in Beer Tölt at the October WorldRanking show at Lettleiki Icelandics in Kentucky; Ron is a member of the new Sirius Club. In row three, 78-year-old Dave Ferguson and Lyfting frá Hallkelsstaðahlíð won first place in Beginner Tölt at the WorldRanking show. Below, Iris Heidelberg was twice named Rider of the Month in the Sea 2 Shining Sea program.

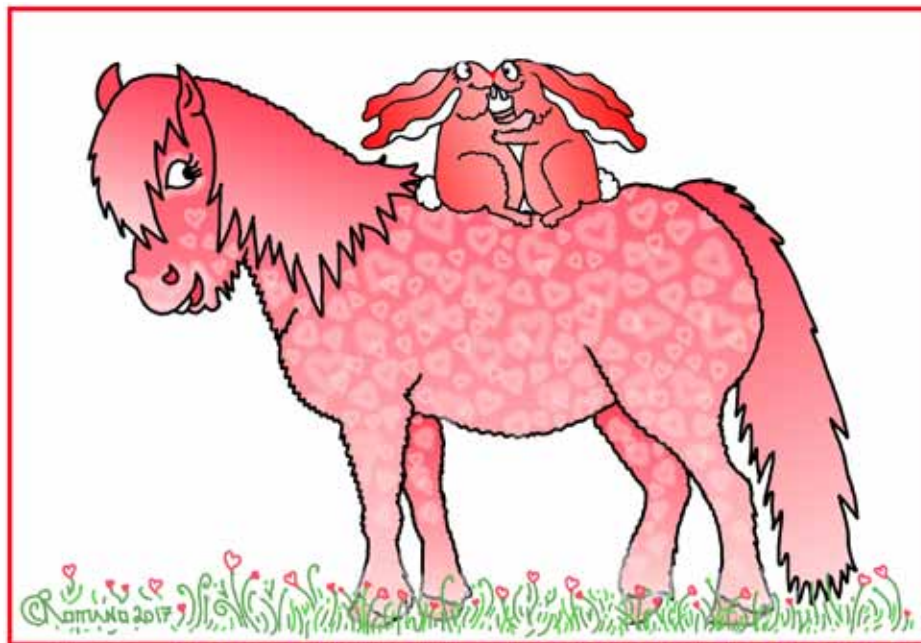
YOUTH CUP 2018

This year's FEIF Youth Cup will be held July 28 to August 4 in Axvalla, Sweden. The Youth Cup is a bi-annual FEIF event focusing on teamwork, sportsmanship, improved riding skills, and cross-cultural friendships. Young people from all over the Icelandic horse world come together for a week of training, of engaging with the local surroundings of the host country, and of international competition. Riders compete on their own or on provided horses, showcasing the best examples of horsemanship from their home nation. The Youth Cup is also an excellent opportunity to meet like-minded young riders from other countries, to speak other languages, and to learn to do things a little differently.

Young riders turning 14, 15, 16, or 17 during the year of the Youth Cup are eligible to participate; proof of age is required.

American applicants must also be a member of the USIHC. Applicants must fill out an application, ask their riding instructor for an evaluation, and send a video showing a 4-gait or 5-gait program and a tölt program. The videos are judged by a FEIF judge. Programs scoring over 4.5 are eligible for the Youth Cup team. The applications are evaluated by an independent panel to break any ties in the video scores.

For more information please contact your Regional Club's youth representative or the chairman of the USIHC Youth Committee, Kevin Draeger, at youth@icelandics.org.



HORSE WELFARE

One of FEIF's missions is to focus on horse welfare—and to put the welfare of the horse first in everything we do. While this emphasis is clearly described in our General Rules and Regulations, with reference to the FEI Code of Conduct, FEIF would like to stress the importance of this part of our mission.

There is a growing focus on injuries, specifically on oral wounds. The responsibility for the welfare of the horse lies, without any doubt, with the rider of the horse. Many riders are not aware that their horse is injured (for example, with an oral wound), but that is no excuse. It is up to the rider to become educated: to acquire the relevant experience and knowledge to be able to avoid injuries and, if an injury happens, to treat it and not to mistreat the horse. Learning about all aspects of horse riding and handling, in order to manage the horse in the best possible way, is for all riders a lifelong activity.

The responsibility of trainers and instructors is to help educate the rider, so that the correct equipment is used properly, wrong equipment is not used, and horses are not injured.

The responsibility of the organizers of sport, breeding, or gæðingakeppni events is to make sure that all relevant precautions are taken to avoid injuring the horses, and

that the necessary consequences ensue if an injury on a horse is discovered.

The responsibility of the judges is to make sure that the riders take horse welfare seriously and to implement the relevant consequences (e.g., a warning, or disqualification with or without publishing on the FEIF website). Sometimes it is difficult for judges to decide whether a warning should be given or not, and what the consequences should be. But this is part of the duty of being a judge, and we all expect the judges to take their responsibility very seriously. We are, therefore, also obliged to support the judges when they are doing their job.

Finally, our individual responsibility is to adhere to the current rules, but also to use our common sense and to show proper horsemanship.

PORTED BITS

Editors' note: The FEIF Sport Committee and the Board of FEIF circulated the following letter to all friends of the Icelandic horse in response to an open letter to FEIF on the matter of ported bits, sent by trainer Mette Manseth on November 26, 2017.

The mission of FEIF is to focus on horse welfare and our goal is to put the welfare of the horse first in everything we do. We believe horse welfare considerations are not limited to certain bits, but rather go much further. The focus of the discussion

should be on reducing our tolerance for mouth wounds, no matter which bit is used.

After two years of checking the condition of horses' mouths and watching mouth controls being implemented in many different ways in FEIF member countries, the FEIF Sport Committee revisited the topic of ported bits. The Icelandic bits in question were on the prohibited equipment list for sport riding since 2015, in support of the decision made in Iceland not to allow any ported leverage bits. Ported leverage bits other than the Icelandic bit continued to be allowed in FEIF sport competitions.

In October 2017, the FEIF Sport Committee decided to lift the ban on ported Icelandic bits, as checks over the last two years did not provide sufficient grounds for banning the general class of ported bits with leverage altogether. At the same time as lifting the ban on ported bits, we discussed increasing the number of mouth checks and thus further promoting good practice.

Evidence suggests that many mouth injuries occur in connection with a range of bits that are of the wrong size or that are not correctly positioned in the mouth of the horse. Stigmatizing a class of bits does nothing to address this problem. This can most efficiently be addressed by increasing the number of mouth inspections and by further penalizing positive findings.

In all considerations of whether to ban equipment, we have to begin by assuming that the equipment is used correctly. In the case of bits, this includes the following checks:

- Is the bit of the right size?
- Is the bit placed correctly in the mouth of the horse?
- Is the curb chain/strap (if present) set correctly?
- Are the reins connected in the right place?
- Is the rider sufficiently experienced in the use of the bit?
- Is the horse sufficiently trained for the use of the bit?

If all these assumptions are satisfied,

the decision to ban or not will be made based on whether it is possible to use the equipment without causing harm to the horse or gaining an unfair competitive advantage.

Regardless of whether specific bits are on the prohibited list or not, all riders and officials have a duty to monitor the effects of the bit on the mouth and not only on the quality of the performance. Horse welfare is best served by increasing the awareness of the importance of mouth checks and decreasing the acceptance of "small" injuries.

FEIF is the collective voice of the member associations. If the member associations believe it is important to have a bit on the prohibited equipment list, the appropriate way to do so is to bring a motion and put it to the vote at the annual Sport Leader meeting. We welcome your input and are looking forward to constructive discussions and any other concerns in connection with the welfare of the Icelandic horse.

GOOD AND HARMONIOUS RIDING

FEIF congratulates the 119 riders who have been nominated for Good and Harmonious Riding during the 2017 competition season. Thank you to all riders listed for being such excellent examples of the type of riding we hope to see in our sport!

Martin Rønnestad (NO), who was already nominated in the past four years, received a total of 10 nominations at five

different events during the 2017 season to top the list as most-nominated riding for both events and total nominations.

FEIF International Sport Judges at World Ranking events can nominate riders to be included in the list because of their fine riding style. This is independent of the test or the marks given. FEIF is proud to present riders nominated for Good and Harmonious Riding on the FEIF website at www.feif.org/Sport/GoodandHarmoniousRiding.aspx.

LANDSMÓT 2018

The national Icelandic horse competition will take place in Reykjavík on July 1 through July 8, 2018. At Landsmót you will see Iceland's top breeding horses in all age groups, the strongest sports competitions of the year, and the gæðingakeppni. The young riders compete in three age groups: children, teenagers, and young adults. Pace races also get their spotlight in the program.

Icelandic music and entertainment is a big part of the atmosphere, as is the market area, where you can get Icelandic riding gear, food, and "lopapeysa." You can buy a week pass, which means you don't miss anything, or you can get a week pass with the Reykjavík City Card, which gives you free access to museums, thermal pools, and city buses (Strætó) and more activities during the tournament. You can also buy a weekend pass that gives you access to the tournament starting at 5 p.m. on Thursday, July 5.



CLUB UPDATES

There are 14 Regional Clubs and one Activity Club affiliated with the U.S. Icelandic Horse Congress. To find the one nearest you, see the USIHC website at www.icelandics.org/regionalclubs. Contact information for each club can also be found there. The following clubs filed updates on their activities this quarter.



ALASKA

BY JANET MULDER

In September, the Alaska Icelandic Horse Association held its first USIHC-Sanctioned Show in over 10 years. Pétur Jökull Hákonarson was our judge, arriving direct from Iceland, and 14 riders and 17 horses participated. A huge thank-you goes out to the many club members who volunteered their time and donated funds to make this event happen. We look forward to holding another sanctioned show in 2018 and to having more schooling shows to prepare horses and riders for this type of competition.

Our clinic schedule was full this summer, with two three-day clinics held in May and June, with Steinar Sigurbjörnsson and Trausti Guðmundsson, respectively. Our Tölt Alaska Youth Camp also took place in June. In July, we sent four riders to the American Youth Cup



Scenes from the Alaska Icelandic Horse Association's USIHC-Sanctioned show: at left, Ella Chythlook riding Brenna from M & M Stables, above Robyn Schmutz riding Von frá Vindsdalur, and below Bernie Willis riding Von frá Nautabúi.

in Santa Cruz, with the club generously sponsoring each rider. In August, we had a two-day clinic with Bill Burke, focusing on equitation and precise aids.

Our members have also been participating in the USIHC's Sea to Shining Sea ride and in locally organized horse archery events. We all enjoy sharing our wonderful horses with friends and new enthusiasts we meet on the trails. Looking forward to a fantastic 2018!

FLUGNIR (MINNESOTA & WISCONSIN)

BY JACKIE ALSCHULER
& EVE LOFTNESS

We have had a number of changes to the Flugnir Board this year. Our president, Kevin Draeger, is on to more adventures out of the regional area, having become a member of the USIHC Board of Directors, so sadly he stepped down from our Board. We are all sorry to see Kevin leave, but are grateful for his numerous contributions to Flugnir and the Icelandic horse community.

Our new president is Eve Loftness, and our Vice President is Susy Oliver. Both are dedicated and active participants





Two new members of the Flugnir board are Kat Payne, at left, and Deb Cook, above.

in numerous Flugnir events.

We are fortunate to have two new Board members: Deborah Cook, one of the founders of Flugnir, has rejoined the Board. All her experience and knowledge will be invaluable. Deborah has been very active in the club over the years, serving as a judge and, most recently, expertly handling the IceTest responsibilities at the 2017 Flugnirkeppni show.

We also welcome Kat Payne to our Board. Kat has several Icelandic horses on

her farm. She is very energetic, creative, and artistic. She designed the beautiful logo in use on the Flugnir Facebook page and website.

We plan to kick off 2018 with our third annual Winter Warm Up party in January. We will enjoy a pot-luck gathering, games, and prizes, in addition to planning our events for the year.

For more information on Flugnir activities, please visit our website at www.flugnir.org.

GLITFAXA (CALIFORNIA)

BY PIA TUCKER

Glitfaxes members met for a trail ride and our annual meeting at Lynch Canyon in Northern California, where the weather was beautiful and all the horses got to meet cows, some for the first time. Our club is primarily trail- and education-focused, and that theme characterized our meeting.

Because we do have a strong trail focus and, although it is not a requirement, several of our members are in the grey-haired age bracket (Glitfaxes means “shining mane”), trail safety was a central topic of discussion. We partially took our lead from the fox hunters, and members of our Board gave their policies our own spin. Namely, there was a consensus that, although horse riding (really anything horse-related) can never be completely safe, good communication is of the utmost importance when riding in a group. Also, we felt it to be important that all members of the ride describe their experience level and that of their horse, as well as their expectations for the ride. A slow amble to smell the roses doesn’t mix well with riders who know no greater thrill than a fast pace race! By stating our expectations up front, hopefully everyone’s needs can be met. We plan to put our complete list of safety suggestions on our Facebook page, when completed.



Glitfaxes members on the trail (from left): Melanie Bartoletti and Bangsi, Lisa Herbert and Krummi from Fitjamyri, Gabriele Meyer and Askur, Bonnie Sabraw and Fiöla frá Grenstanga, Pia Tucker and Rauði from Dalalíf, and Henriette Bruun and Faxi from Creeksedge.

Lastly, we rejoiced in our strength in numbers. Northern California has limited horse trail access, and recently there was a threat to shut down one of the few horse camps in our club's area. Our members got involved in a letter-writing campaign with other horse people, which had the happy outcome of preventing closure of the camp at beautiful Point Reyes National Seashore.

our own members.

The long, fairly mild autumn enabled many of us to ride outside on trails almost every day. One of the things that made it more fun was participating in the USIHC's new Sea to Shining Sea program. In addition to that incentive program, many of us rode in the Cold Challenge 2017. This cross-over ride allows us to share our Icelandics with the "big horse" world, clear up misconcep-

tions about the breed, and in some cases, get people on Icelandics who have never met or ridden one.

While we mainly used our horse time to trail ride in small groups, we continued learning, with members competing or participating in trail competitions, cow sorting, driving, dressage, and other disciplines. In meetings, we explored saddle- and bridle-fit and discussed blankets, feed, hooves, and boots. We fed our passion and filled our bellies with good food.

Freya Sturm held a clinic in October at Karin Daum's Schwalbenhof farm, and we all had a great time. In addition to exercises to improve our own balance and conditioning, we learned how to be a better partner to help our horses along that path. Freya also gave lessons in December in Ellensburg, which gave some of us an excuse to drive over and visit. Then she came to Bellingham for a day and a half of lessons. We were able to fill her schedule, and had a waiting list as well.

In January, we will be constructing next year's schedule of Freya Sturm clinics, planning trail rides and trips to partner with other clubs in the area, and looking for new and intriguing activities to share with our club members. Our club has made the decision to move to collecting dues, as we would like to be able to fund or underwrite a trip each year for club members to visit other places around the Pacific Northwest where we can ride, visit, and get to know others in the Icelandic horse world.



HESTAFOLK (NORTHWEST WASHINGTON)

BY LISA MCKEEN

What a wonderful year it has been! Our club members have been very busy and, while growth is sometimes chaotic in a large group of people and horses, it's so amazing to watch our club and the Icelandic horse world grow in our area.

Since September, we have introduced Icelandics to—and ridden with—at least seven new people due to our participation in the state fair. Creating the props for our display continues, as we learn and grow from this community that is so fascinated by our Icelandic horses. We have been given input on Viking authenticity and history from members of the Society for Creative Anachronism (SCA) and others with experience in shield building and mounted archery, along with the constant research by

Above, clinician Freya Sturm shows Julia Daum some massage techniques on her mare. Photo by Judy Skogen. Below, attending the Hestafolk clinic were Freya from Extreme Farm, Judy Skogen, Judy Pratt, and Glama from Tails End. Photo by Kathryn Lockerbie.





The drill team from Solheimar Farm performed the breed demonstrations for the NEIHC at Equine Affaire in Massachusetts in November: left to right, Richard Davis, Rebecca Hoyt, Sigrún Brynjarsdóttir, and Amber Parry-Hoyt. Photo by Emily Potts.

NEIHC (NORTHEAST)

BY JESS HAYNSWORTH

As I write this in January, the Northeast is engulfed in a polar vortex and the news reports say New England is colder than Mars. Our Icelandics are probably the only horses in the Northeast who actually enjoy this weather!

This past quarter kicked off with our club's biggest promotional event, Equine Affaire in Springfield, MA. The NEIHC's Equine Affaire organizer, Em Potts, writes the following: "Each year the NEIHC participates in Equine Affaire by renting a booth and riding in breed demonstrations. Over 100,000 people attend Equine Affaire each year, and many of them stopped by our booth to learn more about the Icelandic horse. Our Equine Affaire participation is made possible by the support and enthusiasm of all of our members, and is an excellent way for us to promote the breed. Our dedicated volunteers gave their time to help with paperwork, gather brochures, materials, books, and decorations, set up, break down, work in the booth, ride in the demos, provide horses for the booth, and trailer horses to the event.

"This year we partnered with Horses of Iceland, who brought a beautiful display, as well as informative videos, brochures, and pamphlets. Þórdís Anna Gylfadóttir, project manager of Horses of Iceland, gave an in-hand presentation at the Equine Fundamentals Forum, where she discussed the



The NEIHC partnered with Horses of Iceland, whose project manager, Þórdís Anna Gylfadóttir, gave an in-hand presentation for the Equine Fundamentals Forum of Equine Affaire in Springfield, MA.

history, culture, and gaits. There was a lot of interest in the NEIHC, as well as in where to ride Icelandic horses here in the U.S. We handed out over 250 farm lists, as well as countless *Quarterly* magazines. The Solheimar Farm drill team was a huge hit and did an excellent job representing the breed in the riding demos. They rode a complex and exciting drill, as well as showing each of the gaits, including flying pace! Riders included Sigrún Brynjarsdóttir, Richard Davis, Rebecca Hoyt, and Amber Parry-Hoyt."

Other volunteers we wish to thank for making the NEIHC's participation in Equine Affaire so successful this year are: Margot Apple, Leslie Chambers, Rebecca Daddona, Leah Greenberger, Grace Greenberger, Esther Heffernan, Ebba Meehan, Kara Noble, Audrey Safford, Scott Safford, Beth Timlege, and Annamaria Wallstrom. Thank you all for making this fun event possible!

Merrimack Valley Icelandics in Boxford, MA organized and hosted two clinics this past quarter. Ebba Meehan writes: "On November 2-3, Guðmar Pétursson of Hestaland in Iceland taught a two-day clinic focused on balance and connection. It was filled with 12 riders, 8 horses, and 15 auditors. There were both private and group lessons. He also lectured about training the four-gaited vs. the five-gaited horse, and



NEIHC member Ebba Meehan of Merrimack Valley Icelandics in Boxford, MA organized clinics with Guðmar Pétursson (above) and Carrie Lyons Brandt (below) in November and December.



how the breed in Iceland has been developing over the last 20 years. On December 14-16, we held a clinic with Carrie Lyons Brandt of Taktur Icelandics in Kentucky. She came for three days to teach a series of private and group lessons for riders of all levels. The cold weather did not keep our enthusiastic riders at home! We had 11 riders, 6 horses, and 6 auditors. The clinic ended with a drill-team exercise that engaged the entire group in great fun and learning.”

On December 16, Mad River Valley Icelandic Horses held our Annual Holiday Cookie Party in Warren, VT. Students, families, and boarders gathered for a fun afternoon of cookie baking and decorating. Drinks and snacks were served and many laughs were had by all. Thank you to Anne Hyde and Bill Haynsworth for hosting this

fun annual gathering!

While winter is a slow season in the Northeast, we do have our club’s Annual Meeting and Thorrablot party to look forward to! This year, they will be held at Merrimack Valley Icelandics in Boxford, MA on March 3. As always, this is a potluck event, so make sure to register and let us know what you are bringing! We look forward to seeing many of you there!

Even though it’s hard to see past the snowdrifts right now, spring is on its way, and so is the NEIHC Open! Our annual USIHC-sanctioned show will take place at Thor Icelandics in Claverack, NY on June 23-24, so mark your calendars now and start getting ready. We look forward to an exciting 2018 riding season!

SIRIUS (OHIO & KENTUCKY)

BY SHERRY HOOVER

We are excited to introduce you to the newest USIHC affiliated club: the Sirius Icelandic Horse Club. Our members live in Ohio, Kentucky, and the surrounding states and are inspired by Sirius, the brightest star in the night sky. Our goals are to support each other, while promoting the Icelandic horse and educating others about this unique breed, and we are looking forward to joining each other on trail rides, hosting clinics, and participating in training and competitions. We welcome all who live nearby to join us. Please look for club event updates on the USIHC website or contact Sherry Hoover at 890hoover@gmail.com.



Members of the new Sirius Club of Ohio and Kentucky, Narnia Kay and Addison Kay with Diljá frá Mosfellsbæ at their Winterfell Farm in West Jefferson, OH. Below, Susan Rospotynski from Copley, OH riding in Iceland.



TOPPUR (IOWA)

BY VIRGINIA LAURIDSEN

Toppur members gathered in early November at Harmony Icelandics for a clinic entitled “The Horse as a Mirror of the Rider” with Carrie Lyons Brandt. We had a terrific time!

Mother Nature once again smiled upon us, with some sunshine and seasonally warm temperatures—that means a bit cold for humans and perfect for horses. Carrie is a fount of knowledge and a gifted instructor. She was able to quickly identify specific issues with all of our horse-and-rider combinations and to offer remedies to solve them. We learned many new exercises for flexion, suppling, and balance. Most importantly, we learned that our horses are really trying to please us and responding to what they think we want. So don’t blame the horse—blame the rider!

Carrie was encouraging and understanding, reminding us that bad training in the past takes a long time to overcome, for both horse and rider. We all need to be patient and not to attempt complicated exercises until we have mastered the basics. She was absolutely inspirational! Who knew that moving the hind end could be interesting for 30 minutes?

We began with groundwork to relax and communicate with our horses. Once tensions were released, Carrie demonstrated how the same exercises could be done in the saddle. She worked on having us sit in a balanced seat, which was visibly apparent in our mounts. She taught us how to move our center of gravity to the



Toppur member Virginia Lauridsen and Gosi frá Lambastöðum took a gold medal in Tölt T1 at the WorldRanking Show in Kentucky.



Toppur member Daria Peters is the proud new owner of Vörður frá Hallkelsstaðahlíð.

hind end of the horse and to use bending exercises and leg yields to release tension. By the end of the clinic, we were all much less dependent on the bridle.

Each rider had four private sessions with Carrie, and observers were treated to a masterful display of progress. Sometimes you can learn more by observing than performing. A big thank-you to Carrie for explaining everything so well to the “peanut gallery.”

One of the highlights of the weekend was the delicious food and camaraderie. Our small club is growing. We had four new riders, and they are all now Toppur members! The lodge at Harmony Icelandics was warm and cozy, and we all enjoyed getting to know each other around a roaring fire. Toppur members outdid themselves with culinary masterpieces like Shepherd’s Pie, Chicken Chili, and, of course, grilled Iowa Pork Chops. We even managed to have spouses and significant others enjoy the atmosphere.

Toppur is also very proud of the stellar performances of our members at the World Ranking show at Léttleiki Icelandics in Kentucky in October. Horse/rider combinations Dave Ferguson and Lyfting frá Hallkelsstaðahlíð and Virginia Lauridsen with her horses Gosi frá Lambastöðum and Koldimm frá Miðási made the long trek from Iowa to compete. They also took two-year-old Bolti from Harmony Icelandics for the breeding evaluation and recent import Vörður frá Hallkelsstaðahlíð to gain experience.

It was a weekend to remember! Toppur member Kirby Antisdal went along as chief groom, driver, photographer, and all around emotional support. And Guðmundur Margeir Skúlason (“Mummi”) made the journey from Iceland to coach us.

Dave and Lyfting won a gold medal in the Beginner Tölt class at their first Icelandic show! Virginia and Gosi placed first in T1 and second in V1. Virginia and Koldimm won the T2 class, and Mummi and Vörður brought home medals in PP1 and P2. Bolti was described by breeding expert Barbara Frische as “an elegant horse with excellent potential.”

Best of all, we gained a new Toppur member and Vörður found a new home! Daria Peters went to Kentucky just to get an Icelandic horse “fix” and is now the proud owner of a handsome gelding, happily enjoying his new home in western Illinois. (These Icelandics are hard to resist.)

Toppur members are thrilled to be part of a growing Icelandic horse community in the “heartland.” We have grown from 10 members (5 riding) in February to 17 members (13 riding) in just nine months. We look forward to participating more at the regional and national level, and to hosting a breeding evaluation and small show next September.



Toppur’s show team in Kentucky: Dave Ferguson on Lyfting frá Hallkelsstaðahlíð, Virginia Lauridsen, and trainer Guðmundur (Mummi) Skúlason from Hallkelsstaðahlíð in Iceland.

BLOOD PROFILE RESULTS

BY ASHLEIGH NEWMAN, TRACY STOKOL, AND BETTINA WAGNER

We are pleased to share with readers of the *Quarterly* the results of our Icelandic Horse Reference Interval Study (known to members of the U.S. Icelandic Horse Congress as the “USIHC Blood Profile Project”). We would like to thank everyone, human and equine, who helped to make this study possible.

We are scientists at Cornell University in Ithaca, NY. Prior to this study, our clinical pathology laboratory in the Animal Health Diagnostic Center had established reference intervals for various breeds of horses, as well as for dogs and cats. These intervals are generated from the blood test results of clinically healthy animals; the purpose is to define what the test results of a “normal” animal of a certain breed should look like.

Hematologic and biochemical reference interval tables, like the ones that accompany this article, are usually provided along with blood test results to help veterinarians detect and diagnose disease. Test results that fall outside of the reference intervals are considered to be abnormal.

If your horses’ blood tests return abnormal results, your horses may be diagnosed with a certain disease or condition, such as liver disease, anemia, or inflammation. Or your vet may request additional testing to try to detect the underlying disease causing the abnormal blood test results. In either case, the quality of the diagnosis depends on the quality of the reference intervals.

ARE ICELANDICS DIFFERENT?

Why do we need specific reference intervals for Icelandic horses? For many years the USIHC has received numerous inquiries from veterinarians and horse owners across the country looking for help in interpreting what they found as odd blood test results. Though over time it became obvious that there was some breed specific deviation in these results, the USIHC had no definitive information to provide.

As a result, the USIHC has for a



Established in 2012, the herd of Icelandic horses owned by the Wagner Lab at Cornell University is contributing to research on summer eczema, vaccines, and other topics, in addition to helping establish the reference intervals announced in this article. Here, Huginn frá Keldum, Illingur frá Keldum, and Jór frá Keldum, three of the Wagner Lab horses born in Iceland, enjoy a sunny day in Ithaca, NY. Photo by Andrea Barber.

long time been looking to establish a reference interval for Icelandic horses. The Congress was unable to do so until recently, due to the difficulty of sampling the necessary number of horses and the overall cost. But when Bettina Wagner established a large herd of Icelandic horses at Cornell University for her research into summer eczema in 2012 (and joined the USIHC), the Congress saw a unique opportunity. A few years later, through Board member Andrea Barber, the USIHC approached Bettina and offered to sponsor the blood profile project—though as it turned out the project was paid for almost entirely by generous private donations from individual Icelandic horse owners.

At Cornell, we were well aware of the value in having specific reference intervals for Icelandic horses. Data from other species confirm that specific breeds—such as Icelandic horses—can have nor-

mal blood results that are different from those of other breeds, such as Thoroughbreds. Test results flagged as “abnormal” using general equine reference intervals may, in the case of an Icelandic horse, actually be normal.

Using breed-specific reference intervals can thus avoid unnecessary additional testing to investigate an abnormal result and can lead to the detection of underlying disease that might otherwise have been missed. Even within the same breed, there can be differences in blood test results for animals living in different geographic regions (e.g. Europe versus the United States).

THE PROCESS

To establish reference intervals for Icelandic horses, we used blood samples from registered Icelandic horses: 45 collected “in-house” from the Wagner herd at Cornell, and 79 collected by veterinarians

from across the country and shipped to our laboratory for testing. A total of 124 horses were sampled, consisting of 68 mares, 48 geldings, and 8 stallions. Most horses were over 5 years of age (average 8.5 years old; the oldest were 20 years old); 29 horses (23%) were 2-3 years old. The horses resided in the following states: New York (49), Georgia (32), Kentucky (18), Wisconsin (11), North Carolina (6), Florida (4), and Washington (4).

The reference intervals for hematologic (Table 1) and biochemical data (Table 2) were generated according to the guidelines established by the American Society for Veterinary Clinical Pathology (ASVCP) using a program called Reference Value Advisor (see the references below). The data we have provided includes:

- The number of animals used for determining each reference interval. This number varies for each test because we either did not run the test (if we did not have enough samples) or we removed “outlying” data. Outliers are low or high results from individual horses that do not align with the results from the rest of the horses. They can be due to problems with the collection or handling of the blood samples, or even due to underlying (as yet undetected) disease.



Predikun frá Melaleiti, a new import to the Wagner Lab herd. Photo by Andrea Barber.



Lögg frá Laufhóli, one of the original Wagner Lab herd mares. Photo by Andrea Barber.

- The median, average, and standard deviation of the results.
- The minimum and maximum results: These are lower or higher than the lower or upper limits of the reference intervals, because reference intervals normally exclude the top 2.5% and bottom 2.5% of the data.
- Reference intervals for each test.
- 90% confidence intervals for each end (lower and upper) of the reference interval. These intervals give an estimate of the degree of uncertainty of the upper and lower limits of the reference interval (the narrower, the better).
- The distribution of the data (normal/Gaussian or non-normal/non-Gaussian).
- The statistical method used to calculate the reference intervals (all were non-parametric).

SOME OBSERVATIONS

When analyzing the data, we made these interesting observations:

Some of the test results for the 2 to 3-year-old horses were different from those of animals older than 5. We did not have enough young horses to establish their own reference intervals. However, we have provided a summary of the data

(Tables 3 and 4) that can be used as a guide to help interpret results from 2-3-year-old Icelandic horses.

These differences between the younger and older horses were both expected and unexpected. The younger horses had the following differences in their results, as compared to the adults.

- Expected: Smaller red blood cells (low MCV) and lower red blood cell mass (Hct); and higher absolute lymphocyte count, liver enzyme activities (ALP and possibly GLDH), and phosphate.
- Unexpected: Lower sodium and chloride; and higher glucose, cholesterol, triglycerides, and NEFA. These changes can be attributed to the different metabolism required to support growth.

We also noticed some changes that were associated with delayed sample testing. The mailed-in samples took approximately 24-48 hours to get to the laboratory. During this time, the results can change as a consequence of storage. These changes are: higher potassium (due to leakage from red blood cells, which are rich in potassium) and lower bicarbonate and higher anion gap (due to production of lactic acid by cells). These changes can be reduced by rapidly removing serum or plasma from cells after collection.

ICELANDIC HORSE HEMATOLOGY REFERENCE INTERVALS COMBINED DATA (ALL HORSES)

Descriptive statistics RI with 90% CI

Analytes	Units	n	Mean	SD	Median	Min	Max	RI ^a	Lower limit	Upper limit	Distribution ^b	Method ^c
RBC	10 ⁹ /μL	124	7.1	0.7	7	5.3	8.8	5.7-8.6	5.3-6.0	8.4-8.8	NG	NP
Hemoglobin	g/dL	124	11.9	1	11.7	9.6	14.6	10.2-14.3	9.6-10.5	13.6-14.6	NG	NP
Hct*	%	124	33	3	33	27	43	28-40	27-30	39-43	NG	NP
MCV*	fL	124	47	3	48	40	56	41-54	40-41	52-56	G	NP
MCH*	pg	124	17	1	17	15	20	15-19	15-15	19-20	NG	NP
MCHC*	g/dL	124	36	1	36	34	38	34-37	34-35	37-38	NG	NP
RDW*	%	124	18.9	1	18.8	16.7	22.2	17.2-21.3	16.7-17.4	20.8-22.2	G	NP
nRBC	/100 WBC	124	0	0	0	0	1	0-0	0-0	0-1	NG	NP
WBC*	10 ³ /μL	124	7.9	1.8	7.8	4.1	14.2	4.6-11.9	4.1-5.2	10.6-14.2	G	NP
Neutrophils	10 ³ /μL	123	3.8	1	3.6	1.5	6.2	1.8-6.0	1.5-2.3	5.6-6.2	NG	NP
Lymphocytes*	10 ³ /μL	123	3.5	1.6	3.1	0.9	7.8	1.3-7.4	0.9-1.6	6.8-7.8	NG	NP
Granular lymphocytes*	10 ³ /μL	124	0.2	0.2	0.2	0	0.8	0-0.6	0-0	0.6-0.8	NG	NP
Monocytes	10 ³ /μL	124	0.2	0.2	0.1	0	0.9	0-0.7	0-0	0.5-0.9	NG	NP
Eosinophils*	10 ³ /μL	122	0.3	0.3	0.2	0	1.3	0-1.2	0-0	1.0-1.3	NG	NP
Basophils*	10 ³ /μL	123	0	0.1	0	0	0.3	0-0.2	0-0	0.1-0.3	NG	NP
Segmented Neutrophils*	%	123	49	12	50	18	78	22-77	18-29	68-78	G	NP
Lymphocytes*	%	124	44	14	44	18	82	19-77	18-20	70-82	G	NP
Granular lymphocytes* (% of lymphocytes)	%	124	6	5	5	0	21	0-18	0-1	17-21	NG	NP
Monocytes	%	124	2	2	2	0	10	0-8	0-0	8-10	NG	NP
Eosinophils*	%	123	4	4	2	0	16	0-14	0-0	14-16	NG	NP
Basophils*	%	123	0	1	0	0	3	0-3	0-0	2-3	NG	NP
Neutrophils*	10 ³ /μL	123	3.9	1.0	3.7	1.8	6.7	2.3-6.3	1.8-2.6	5.8-6.7	NG	NP
Lymphocytes*	10 ³ /μL	124	3.2	1.5	2.8	1.2	9	1.4-6.7	1.2-1.5	5.9-9.0	NG	NP
Monocytes	10 ³ /μL	123	0.3	0.1	0.3	0.1	0.5	0.1-0.5	0.1-0.2	0.5-0.5	NG	NP
Eosinophils	10 ³ /μL	123	0.3	0.3	0.2	0	1.4	0-1.2	0-0.1	1.0-1.4	NG	NP
Basophils	10 ³ /μL	124	0	0.1	0	0	0.2	0-0.2	0-0	0.1-0.2	NG	NP
LUC	10 ³ /μL	124	0	0.1	0	0	0.2	0-0.1	0-0	0.1-0.2	NG	NP
Neutrophils*	%	123	50	11	50	30	74	31-73	30-32	68-74	NG	NP
Lymphocytes*	%	124	40	12	41	16	64	18-63	16-22	61-64	NG	NP
Monocytes*	%	123	4	1	4	1	7	2-6	1-2	6-7	NG	NP
Eosinophils*	%	123	4	3	3	0	16	0-13	0-1	11-16	NG	NP
Basophils	%	124	1	1	0	0	3	0-2	0-0	2-3	NG	NP
LUC	%	124	0	1	0	0	2	0-2	0-0	1-2	NG	NP
Platelets	10 ³ /μL	93	217	37	209	168#	362	168-311	168-171	284-362	NG	NP
MPV	fL	107	6.2	0.6	6.1	5.2	7.4^	5.2-7.2	5.2-5.4	7.1-7.4	NG	NP
Total protein	g/dL	121	7.1	0.4	7.1	6.1	8	6.2-7.9	6.1-6.5	7.7-8.0	G	NP
sCD14*	ng/mL	120	625	283	631	79	1337	103-1207	79-184	1125-1337	G	NP

The variation in "n" is due to the exclusion of outliers as detected by statistical testing (Tukey and Dixon Reed tests), as well as the judgment of the clinical pathologists analyzing this data.

* Statistical difference detected between young (2-3 yr olds) and adult (≥4 yr old) horses. Two-sample t test used for G data. Wilcoxon rank sum test used for NG data.

Minimum in samples without platelet clumping identified on blood smear examination

^ Maximum in samples without platelet clumping identified on blood smear examination

^b Data Distribution: G, Gaussian; NG, non-Gaussian

^c Method of RI determination: NP, nonparametric

Table One shows the Icelandic Horse Reference Intervals for hematologic data, generated according to the guidelines established by the American Society for Veterinary Clinical Pathology (ASVCP) using a program called Reference Value Advisor.

ICELANDIC HORSE CHEMISTRY REFERENCE INTERVALS COMBINED DATA (ALL HORSES)

Descriptive statistics RI with 90% CI

Analytes	Conventional units	n	Mean	SD	Median	Min	Max	RI ^a	Lower unit	Upper unit	Distribution ^b	Method ^c
Sodium*	mEq/L	123	136	3	136	127	143	129-141	127-130	140-143	NG	NP
Potassium	mEq/L	123	4.0	0.6	4.1	2.5	5.4	2.5-4.9	2.5-3.0	4.8-5.4	NG	NP
Chloride*	mEq/L	123	98	3	99	90	105	92-104	90-93	102-105	NG	NP
Bicarbonate	mEq/L	123	25	2	25	21	29	22-29	21-23	28-29	NG	NP
Anion Gap*	mEq/L	123	16	2	16	10	23	11-22	10-13	21-23	NG	NP
Urea nitrogen*	mg/dL	123	20	4	20	10	29	12-27	10-15	25-29	NG	NP
Creatinine	mg/dL	123	1.0	0.2	1.0	0.6	1.8	0.7-1.7	0.6-0.7	1.4-1.8	NG	NP
Calcium*	mg/dL	123	11.7	0.4	11.7	10.7	12.8	10.9-12.5	10.7-11.1	12.4-12.8	G	NP
Phosphorus*	mg/dL	123	3.8	0.8	3.7	2	6	2.3-5.5	2.0-2.6	5.1-6.0	G	NP
Magnesium*	mg/dL	123	1.6	0.2	1.5	1.3	2.3	1.3-2.0	1.3-1.4	1.9-2.3	NG	NP
Total protein*	g/dL	121	6.6	0.3	6.6	5.5	7.7	5.9-7.2	5.5-6.0	7.1-7.7	G	NP
Albumin	g/dL	121	2.9	0.2	2.9	2.2	3.4	2.4-3.2	2.2-2.5	3.2-3.4	NG	NP
Globulin*	g/dL	121	3.7	0.4	3.7	2.6	4.7	3.0-4.4	2.6-3.2	4.3-4.7	NG	NP
A/G ratio		121	0.8	0.1	0.8	0.5	1.1	0.6-1.0	0.5-0.6	1.0-1.1	NG	NP
Glucose*	mg/dL	123	84	8	84	60	105	68-102	60-70	100-105	G	NP
AST	U/L	123	384	81	376	226	634	233-602	226-275	529-634	NG	NP
SDH	U/L	118	3	2	3	2	10	2-8	2-2	7-10	NG	NP
GLDH*	U/L	117	11	7	8	3	38	3-33	3-4	27-38	NG	NP
ALP*	U/L	122	166	53	158	75	290	88-282	75-94	263-290	NG	NP
GGT	U/L	118	14	5	13	5	29	7-25	5-8	24-29	NG	NP
Total bilirubin	mg/dL	121	0.7	0.3	0.6	0.3	1.7	0.4-1.5	0.3-0.4	1.3-1.7	NG	NP
Direct bilirubin	mg/dL	123	0.2	0.1	0.2	0.1	0.3	0.1-0.3	0.1-0.1	0.3-0.3	NG	NP
Indirect bilirubin	mg/dL	121	0.5	0.3	0.4	0.1	1.6	0.2-1.4	0.1-0.2	1.1-1.6	NG	NP
Bile acids	mg/dL	119	7	2	7	0	12	4-10	0-4	10-12	NG	NP
CK	U/L	121	367	149	334	149	930	156-792	149-180	646-930	NG	NP
LDH	U/L	122	428	127	413	178	913	238-792	178-272	681-913	NG	NP
Cholesterol*	mg/dL	115	86	12	85	64	136	65-113	64-70	107-136	NG	NP
Triglycerides*	mg/dL	122	38	19	33	4	102	12-96	4-17	68-102	NG	NP
NEFA*	mEq/L	123	0.16	0.13	0.13	0.02	0.66	0.03-0.57	0.02-0.04	0.43-0.66	NG	NP
Iron	µg/dL	123	157	30	155	106	275	109-227	106-114	202-275	G	NP
TIBC*	µg/dL	123	388	48	388	284	508	289-479	284-312	464-508	G	NP
%Sat*	%	122	40	6	41	26	60	29-56	26-31	51-60	G	NP

The variation in "n" is due to the exclusion of outliers as detected by statistical testing (Tukey and Dixon Reed tests), as well as the clinical judgment of the clinical pathologists analyzing this data.

*Statistical difference detected between young (2-3 yr olds) and adult (≥4 yr old) horses. Two-sample t test used for G data.

Wilcoxon rank sum test used for NG data.

^bData Distribution: G, Gaussian; NG, non-Gaussian

^cMethod of RI determination: NP, nonparametric

Table Two shows the Icelandic Horse Reference Intervals for biochemical data, generated according to the guidelines established by the American Society for Veterinary Clinical Pathology (ASVCP) using a program called Reference Value Advisor.

ICELANDIC HORSES DESCRIPTIVE STATISTICS FOR HEMATOLOGY ANALYTES WITH AGE-RELATED DIFFERENCES

Descriptive statistics RI with 90% CI

Table Three: When developing the reference intervals for Icelandic horses, the researchers noticed that some of the test results for the two- to three-year-old horses were different from those of older horses. Those differences are summarized above for hematologic data and on the next page for biochemical data.

Analytes	Conventional units	Age (years)	n	Mean	SD	Median	Min	Max	Distribution
Hct	%	2-3	29	32	2	31	27	38	NG
Hct	%	≥4	95	34	3	33	27	43	NG
MCV	fL	2-3	29	44	2	44	40	48	G
MCV	fL	≥4	95	48	3	48	42	56	G
MCH	pg	2-3	29	16	1	16	15	18	NG
MCH	pg	≥4	95	17	1	17	15	20	NG
MCHC	g/dL	2-3	29	37	1	37	35	38	NG
MCHC	g/dL	≥4	95	36	1	36	34	37	NG
RDW	%	2-3	29	18.5	0.6	18.5	17.2	20	G
RDW	%	≥4	95	19	1.1	18.9	16.7	22.2	G
WBC	10 ³ /μL	2-3	29	9.7	1.3	9.7	7.7	14.2	G
WBC	10 ³ /μL	≥4	95	7.3	1.5	7.3	4.1	11.9	G
Lymphocytes	10 ³ /μL	2-3	28	5.8	1.2	5.7	3.6	7.8	G
Lymphocytes	10 ³ /μL	≥4	94	2.8	0.9	2.6	0.9	4.9	NG
Granular lymphocytes	10 ³ /μL	2-3	29	0.2	0.2	0.2	0	0.7	G
Granular lymphocytes	10 ³ /μL	≥4	94	0.2	0.2	0.2	0	0.6	NG
Eosinophils	10 ³ /μL	2-3	29	0.1	0.1	0	0	0.3	NG
Eosinophils	10 ³ /μL	≥4	93	0.3	0.3	0.2	0	1.3	NG
Basophils	10 ³ /μL	2-3	29	0.0	0.0	0	0	0.1	NG
Basophils	10 ³ /μL	≥4	94	0.0	0.1	0	0	0.3	NG
Segmented Neutrophils	%	2-3	29	38	9	40	20	56	G
Segmented Neutrophils	%	≥4	94	53	11	52	18	78	G
Lymphocytes	%	2-3	29	61	9	59	41	79	G
Lymphocytes	%	≥4	94	39	11	39	18	63	G
Granular lymphocytes (% of lymphocytes)	%	2-3	29	4	2	3	1	10	G
Granular lymphocytes (% of lymphocytes)	%	≥4	94	7	5	6	0	21	NG
Eosinophils	%	2-3	29	1	1	0	0	3	NG
Eosinophils	%	≥4	94	5	4	3	0	16	NG
Basophils	%	2-3	29	0	0	0	0	1	NG
Basophils	%	≥4	94	1	1	0	0	3	NG
Neutrophils	10 ³ /μL	2-3	28	3.6	0.5	3.7	2.7	4.3	NG
Neutrophils	10 ³ /μL	≥4	94	3.9	1.1	3.7	1.8	6.7	NG
Lymphocytes	10 ³ /μL	2-3	28	5.3	0.8	5.2	3.6	7.1	G
Lymphocytes	10 ³ /μL	≥4	95	2.6	0.8	2.4	1.2	4.6	NG
Neutrophils	%	2-3	29	38	5	37	30	48	G
Neutrophils	%	≥4	94	54	9	55	32	74	G
Lymphocytes	%	2-3	29	56	5	54	46	64	G
Lymphocytes	%	≥4	95	36	10	33	16	60	NG
Monocytes	%	2-3	29	4	1	4	3	6	G
Monocytes	%	≥4	94	4	1	4	1	7	G
Eosinophils	%	2-3	29	1	1	1	0	6	NG
Eosinophils	%	≥4	94	5	3	4	0	16	NG
sCD14	ng/mL	2-3	29	826	194	817	490	1208	G
sCD14	ng/mL	≥4	91	562	277	569	79	1337	G

The variation in "n" is due to the exclusion of outliers as detected by statistical testing (Tukey and Dixon reed tests), as well as the clinical judgment of the clinical pathologists analyzing this data.

^bData distribution: G, Gaussian; NG, Non-Gaussian

ICELANDIC HORSES DESCRIPTIVE STATISTICS FOR CHEMISTRY ANALYTES WITH AGE-RELATED DIFFERENCES

Analytes	Conventional Units	Age (years)	n	Mean	SD	Median	Min	Max	Distribution ^b
Sodium	mEq/L	2-3	29	133	3	134	127	141	G
Sodium	mEq/L	≥4	94	137	3	137	127	143	NG
Chloride	mEq/L	2-3	28	95	3	95	90	102	NG
Chloride	mEq/L	≥4	94	99	2	99	92	105	NG
Anion Gap	mEq/L	2-3	29	16	2	16	13	18	NG
Anion Gap	mEq/L	≥4	94	17	3	16	10	23	NG
Urea nitrogen	mg/dL	2-3	29	22	2	22	16	24	NG
Urea nitrogen	mg/dL	≥4	94	20	4	20	10	29	G
Calcium	mg/dL	2-3	29	11.4	0.3	11.3	10.7	11.9	G
Calcium	mg/dL	≥4	94	11.8	0.4	11.9	10.7	12.8	G
Phosphate	mg/dL	2-3	29	4.7	0.5	4.6	3.6	6	G
Phosphate	mg/dL	≥4	93	3.5	0.6	3.5	2	4.7	G
Magnesium	mg/dL	2-3	29	1.4	0.1	1.4	1.3	1.5	NG
Magnesium	mg/dL	≥4	94	1.6	0.2	1.6	1.3	2.3	NG
Total protein	g/dL	2-3	29	6.5	0.3	6.5	5.8	7.1	G
Total protein	g/dL	≥4	92	6.6	0.4	6.6	5.5	7.7	G
Globulin	g/dL	2-3	29	3.5	0.3	3.5	3	4.2	G
Globulin	g/dL	≥4	92	3.7	0.4	3.7	2.6	4.7	G
Glucose	mg/dL	2-3	28	91	5	89	83	103	NG
Glucose	mg/dL	≥4	93	82	8	82	60	102	G
GLDH	U/L	2-3	27	11	5	9	5	20	NG
GLDH	U/L	≥4	90	10	8	8	3	38	NG
ALP	U/L	2-3	28	207	44	206	137	290	G
ALP	U/L	≥4	92	152	46	146	75	268	NG
Cholesterol	mg/dL	2-3	29	89	10	89	70	113	G
Cholesterol	mg/dL	≥4	85	85	11	85	64	114	G
Triglycerides	mg/dL	2-3	29	38	10	38	19	58	G
Triglycerides	mg/dL	≥4	93	38	20	32	4	102	NG
NEFA	mEq/L	2-3	29	0.31	0.15	0.26	0.12	0.66	NG
NEFA	mEq/L	≥4	91	0.11	0.07	0.09	0.02	0.34	NG
TIBC	μg/dL	2-3	29	412	30	409	351	479	G
TIBC	μg/dL	≥4	94	381	50	379	284	508	G
%Sat	%	2-3	29	37	4	37	26	44	G
%Sat	%	≥4	93	42	7	42	26	60	G

The variation in "n" is due to the exclusion of outliers as detected by statistical testing (Tukey and Dixon reed tests), as well as the clinical judgment of the clinical pathologists analyzing this data.
^b Data distribution: G, Gaussian; NG, non-Gaussian

Table Four: A summary of the differences in biochemical data for horses two to three years old compared to older horses.

RELEVANT TESTS

Our results support the use of Icelandic horse-specific reference intervals for several common blood tests:

- Red blood cell (RBC) count
- Hemoglobin concentration
- Hematocrit (Hct)
- Red blood cell distribution width (RDW)
- Nucleated RBC (nRBC) count
- Platelet count
- White blood cell (WBC) count
- Sodium
- Bicarbonate
- Anion gap
- Albumin
- Albumin: globulin ratio
- Total bilirubin

- Indirect bilirubin
- AST
- GLDH
- CK
- LDH
- NEFA

For these tests, more than 10% of the Icelandic horse results were outside of our general equine reference interval. For example, if we had used our general equine reference interval to interpret blood results from Icelandic horses, we may have mistakenly identified anemia (lower Hct), electrolyte or acid-base abnormalities (lower sodium and bicarbonate), and protein loss (albumin)—all findings that would potentially result in additional unnecessary diagnostic testing.

We may have also mistakenly diagnosed liver disease (higher AST, GLDH, LDH), negative energy balance (higher NEFA), and inflammation (higher WBC).

Though our results may seem a little confusing to owners, veterinarians examining and blood testing Icelandic horses in the U.S. can now use these hematologic and biochemical reference intervals as a guide when interpreting results from the Clinical Pathology laboratory at Cornell University.

Please continue to work with your local veterinarian when interpreting results from your specific horse. Based on our findings, we plan to publish an academic paper in the future, which will provide this information in greater technical detail to interested veterinarians all over the world.

Again, we would like to thank the USIHC and all the generous owners and veterinarians who provided their time, energy, and funds to make this important study possible.

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Jór frá Keldum, from the Wagner Lab's breeding. Photo by Andrea Barber.

CLICKER FOR SKEPTICS

BY NICKI ESDORN

A few years ago I encountered a problem with my otherwise very brave mare, Álfrún. She was inexplicably refusing to cross wooden bridges. I tried to coax her to follow another, unafraid horse. No go, violent refusal. When a natural horsemanship trainer tried her luck, Álfrún would defiantly step onto the bridge under pressure, then hurl herself back off to safety. I gave up, for a while.

Later, when I took a horse agility clinic with Heidi Potter, she suggested I use “the clicker.” She explained that it seemed to work with emotionally charged problems, like a deep-seated fear. I had heard about clicker training or “reward-based training,” but I was very skeptical. I did not really want to get into using this “artificial” tool—and all those treats! I thought it was used mostly for teaching circus tricks. But nothing else had worked, so I decided to try.

It was like magic! Step by little step, Álfrún started to approach the horrible obstacle. Within minutes, she had first one foot, then two, on the wooden board. I clicked for every movement choice in the right direction, rewarded her with a treat, and then just waited for her to figure out the next step. I realized that the click always stopped her. Instead of rushing and jumping, she calmly and deliberately tried out the footing. I was a convert.

THE WHY

But I still wanted to find out why this approach worked, when all else had failed. I found the answer in the online course “Animal Emotions” given by Karolina Westlund. (I described this course in my article “Understanding Emotions” in Issue Two 2017 of the *Quarterly*.)

In short, when using traditional pressure/release methods, with their implicit threat of escalation of force, the animal is always in “fear mode.” Pressure/release methods work when the animal is more afraid of the consequence of refusing a behavior, than of doing what you ask.

Conversely, clicker training relies on positive reinforcement. When the animal



This feat deserves a very good reward! Taking a treat from a rider is the only instance where the horse may bring her head around to take it.

is trying to figure out what to do to earn a reward, it is in “seeking mode,” which is a very pleasant emotional state. Álfrún found that the very small, incremental steps she needed to perform in order to earn tasty treats were acceptable, even fun, to try. She was never corrected or punished if she needed time to “think” or took a step back. So she learned that being on a wooden board was not scary, but rather pleasant, since only good things were happening.

THE HOW

So, how did it work? First of all, Álfrún needed to figure out that the “click” meant she was about to earn a treat. A very easy way to teach this is to use a target, like a piece of pool noodle. I put Álfrún in her stall, with a stall guard in place. Like all horses, she is naturally curious, so when I held that piece of pool noodle in front of her, she moved toward it to check it out. Click! And then I gave her a treat.

Very quickly, she figured out that touching this target with her nose made me make this funny sound, and that the funny click meant a treat was forthcoming. Next I moved the target up and down, and Álfrún joined in the game.

The click is like a snapshot of whatever your horse is doing at that precise moment. You can wait until your horse does something you want her to do, or you can set her up, for example with the target.

Why the click? It is a sound unlike any other in the horse’s environment, and it is not human language. The horse’s brain processes the click immediately—and differently than it processes a phrase like “good girl.” You can learn to make a distinctive clicking sound with your tongue, but it’s hard to make the sound exactly the same way each time. A little mechanical clicker attached to a wristband works really well.

THE TREATS

What about all those treats? It is not called “reward-based training” for nothing! A treat is a very clear and impressive signal that the horse is doing the right thing. Giving the reward is actually one of the more difficult things to learn—for the trainer. There must be a sacred contract: Every click must mean there will be a treat, and the horse must learn to wait calmly for it, knowing it will come.

Horse and trainer must follow a strict protocol: The horse waits patiently after the click, keeping her head straight. No mugging. The trainer delivers the treat with an outstretched arm, away from

the treat pouch and her own body. The horse politely takes the treat. The trainer relaxes and waits until the treat is chewed before asking for the next step.

It is a good idea to work with a horse that is not too hungry, and to vary the kind of treat to keep it interesting. In the beginning, you click and reward each baby step. Later, Álfurín got one treat for crossing the whole bridge calmly. Eventually, wooden bridges became a non-event, and only occasionally would she get a surprise click-and-reward to keep her feeling good about them.

Following a good treat protocol—and never just handing out goodies for nothing—actually creates a very polite, calm horse that will try to please you to earn a treat.

THE FUN

Interestingly, changing the emotional state and mindset of my horse also changed my emotions and mindset. Instead of looking for the mistake and getting ready to increase the pressure and punish the bad behavior, I was trying to set Álfurín up for doing the next correct little step, and then rewarding it. You cannot help starting to smile and laugh and even whoop when the horse figures it out.

I tried this approach with my young mare Jenny and the scary big puddle she was afraid to cross. Once she stood still facing the puddle, I clicked. I showed her the treat in my outstretched hand and she took it. From her target training she knew the clicker game was now on! Her emotional state went from “I am scared of this thing” to “I know this game! What do I do to play and earn treats?” I rewarded her every move toward and then into the puddle. Within minutes I had her splashing around in the water without once getting off. It was safe, and so much fun!

THE TOOL

Clicker training is a tool. You can use this new tool in your toolbox to solve certain problems, and keep it separate from other riding and training methods. But be careful: Mixing the clicker with pressure/release methods and with punishment will poison your training and erode all trust. Make sure your horse clearly knows when it is clicker time.



At top, Jenny is curious about the piece of pool noodle and wants to investigate. I am holding a small clicker in my left hand together with the noodle target. As soon as Jenny's nose touches it, I click. I deliver the treat quickly, and from an outstretched hand away from my body, keeping Jenny's head straight and not turned in to me. Jenny is restrained inside her stall and I can safely step away outside in case she tries to mug me for a treat. Below, Jenny is playing the target game now: No matter where I hold it, she will try to touch it with her nose!

Training exclusively with this positive reinforcement tool is also not all roses and rainbows. It requires a lot of creativity and great timing from the trainer, along with a serious effort to learn the science and the method. Your horse can become very eager and enthusiastic, or confused and frustrated—not what you want and, possibly, more than you can handle.

It is not all that difficult, though, to give it a try, and it's well worth the effort to reap the rewards of this effective, science-based, humane training method. Your horse will thank you!

LEARN MORE

Visit Alexandra Kurland's website, www.theclickercenter.com, for excellent information, a blog, and how-to books. See www.connectiontraining.com, by trainers Shawna Karrasch, Hannah Weston, and Rachel Bedingfield, for online courses, a member forum, a blog, and coaching. The Intrinzen website, www.intrinzen.horse, has excellent information on starting a training-and-treat protocol in their free e-book. Jennifer Zelig's book, *Animal Training 101*, has a good overview and evaluation of different training methods.

BEYOND TÖLT

BY GABRIELE MEYER

The U.S. is a huge country with few Icelandic horses. That means most of us do not have an Icelandic horse farm nearby where we can board our horses. If you're like me, you board your horses anywhere acceptable—and in so doing, encounter riders of all breeds and disciplines, English and Western alike.

California, where I live, doesn't have the rich history of smooth-gaited horses that states in the south and east possess. Most of the time, my Icelandics and I are my barn-mates' first encounter with gaited riding. Fully aware that I am an ambassador of the breed, I try to ride as correctly as I can. I make sure the other horses in the arena are not spooked when I ride the tölt. Don't laugh! That is a typical first reaction of many high-strung horses.

We usually get a lot of comments: How cute! (Cute? Really? Smile anyway!) How do you cue him to do his "thing"? (Short version: I adjust the walk so that an upward transition yields a tölt, not a trot). What is the name of that gait? (Tölt, t-o-l-t.) He looks so happy! (Thank you!) Is it natural or do you train it? (Yes, and yes.) What is the difference between a Tölt and a Tennessee Walk or a Foxtrot? (Oops, I don't know!)

To answer that last question, I needed to do some research, the results of which I would like to share with you here. I will start by describing what all four-beat gaits have in common and how they are different. I'll take a look at the tölt, and then I will describe some of the four-beat gaits of other breeds. Last, I will tell you about some very special horse breeds that live far away, horses that I hadn't even heard of before researching this article.

WHAT IS THE SAME?

All four-beat gaits share the same footfall sequence: Left hind, left front, right hind, right front (LH-LF-RH-RF), 1-2-3-4. Hence the name: four-beat gait.

All four-beat gaits have eight phases. Each phase describes how many feet are on the ground at a given moment:

- Phase 1: LH on the ground,
- Phase 2: LH and LF on the ground (first lateral two-foot stance phase),
- Phase 3: LF on the ground,
- Phase 4: LF and RH on the ground (first diagonal two-foot stance phase),
- Phase 5: RH on the ground,
- Phase 6: RH and RF on the ground (second lateral two-foot stance phase),
- Phase 7: RF on the ground,
- Phase 8: RF and LH on the ground (second diagonal two-foot stance phase).

As the horse goes through the eight phases, each leg moves forward and the foot steps on the ground, supports the horse's weight, and is picked up again. One full sequence of eight phases is called a stride. After the completion of one stride, the cycle starts over again, beginning with Phase 1 (see the illustration).

Another characteristic all four-beat gaits have in common is that they lack a suspension phase, which means that one or more feet are always on the ground. That's what makes the four-beat gaits so comfortable to ride.

If these characteristics remind you of

the walk, then you are correct: The walk could also be called a four-beat gait. There are differences, though, between walk and tölt. To understand them, please refer to Nicki Esdorn's article "Tölt 101" in Issue Two 2016 of the *Quarterly*, which you can download from our online archive at www.icelandics.org.

We also know that the ability to perform a four-beat gait is inherited; see the *Quarterly* articles by Ann Staiger (Issue Three 2013) and Nancy Marie Brown (Issue Four 2012). In the context of other breeds and their gaits, it is worth mentioning that horses of all gaited breeds examined to date have one or even two copies of the mutated version of the DMRT3 gene, known as the "gait keeper" gene.

WHAT IS DIFFERENT?

Some aspects of four-beat gaits, however, differ from breed to breed.

In the tölt, the eight phases are evenly spaced. In other four-beat gaits, the spacing of footfalls can be uneven. Footfalls may be laterally timed, as in a pacey tölt, or diagonally timed, as in foxtrot.

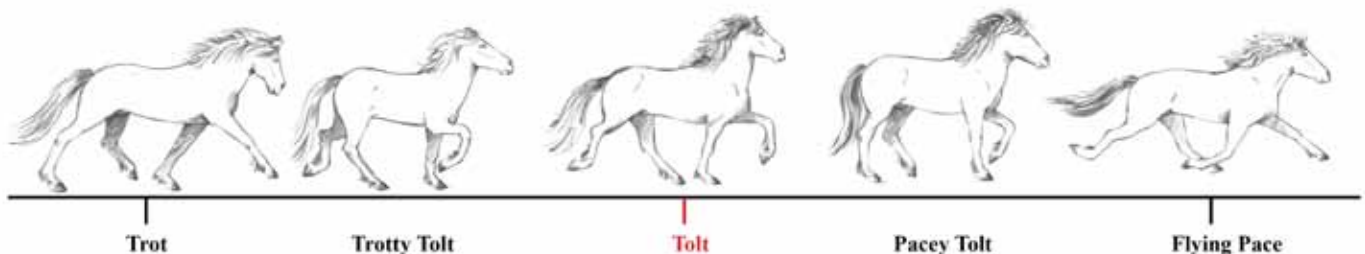
How many hooves are on the ground during each of the different phases can also differ from breed to breed.

In addition, some breeds add other characteristics, such as head nodding or tail bobbing, to the definition of their distinctive four-beat gait.

A CONTINUUM

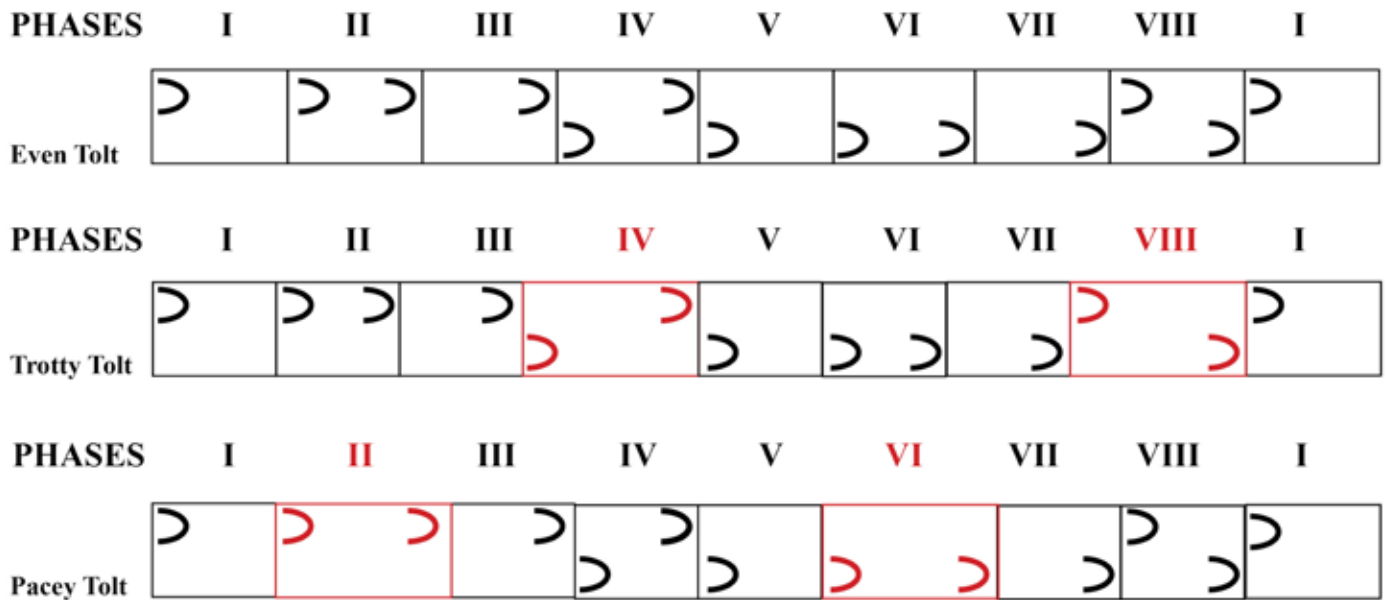
To better understand the footfalls of the four-beat gaits, we can place them on a continuum between the two extremes of the Icelandic horse: trot and flying pace (see the illustration).

Trot and flying pace are two-beat gaits



Tölt on a continuum between Trot and Pace

Illustration by Nancy Wines-Dewan.



All four-beat gaits have eight phases. Each phase describes how many feet are on the ground at a given moment. Here the eight phases of correct tölt are compared to trotty tölt and pacey tölt. The phases with longer duration are shown in red. Illustration by Nancy Wines-Dewan.

with a 1-2-1-2- rhythm in the following four phases:

- Phase 1: Two feet on the ground,
- Phase 2: Suspension,
- Phase 3: The other two feet on the ground,
- Phase 4: Suspension.

The difference between trot and flying pace, in terms of these four phases, is the coupling of the front and hind legs. In the trot, the hind and front legs move forward as diagonal pairs. In the flying pace, the hind and front legs move forward as lateral pairs, that is, the front and hind legs on one side of the horse move forward at the same time. The trot is a diagonal gait; the flying pace is a lateral gait.

All of the four-beat gaits, from the tölt of the Icelandic horse to the specialty gaits of the other gaited horse breeds, can be lined up on the continuum between these two endpoints. Four-beat gaits where the diagonal motion is more prominent lie on the “trotty” end of the continuum; four-beat gaits with more lateral movement are on the “pacey” end.

TÖLT

Gait experts use the length of the phases of a four-beat gait to characterize it. Each

gait generates a sound with a specific rhythm, and this sound gives us important information about the quality of the gait. In canter, do we hear three beats (correct canter) or four beats (incorrect)? In trot, do we hear two even beats? In a four-beat gait, the relative length of the eight individual phases determines if the gait is

even (“isochronous”), or deviates toward trot or pace.

In tölt the rhythm of the footfall is especially telling, as we can hear the slightest deviations from an evenly timed four-beat. The signature rhythm of a correct tölt is an “isochronous” four-beat, meaning that the timing of the footfalls is totally even (LH-



Tennessee Walking Horse Heston, with rider Shayna Shaw, exhibiting running walk with the desired overstride. Photo by Marie Boyd.



West Coast Champion Fox Trotter Sunrise's Smokey Black, owned and shown by Marie Boyd. Smokey is competing here in an Open Two Gait class and is wearing the traditional Fox Trotter show ribbons and matching bridle and saddle pad. Photo provided by Marie Boyd.

LF-RH-RF) throughout all eight phases. It sounds like *tuc-kah-tuc-kah*. Tölt, therefore, belongs exactly in the middle of our gait continuum, halfway between trot and pace (see the illustration). It is neither a diagonal gait, nor a lateral gait.

As we all know and have experienced at one time or another, many Icelandic horses perform a slight variation on the correct, evenly timed four-beat tölt.

In “trotty tölt,” the diagonal two-foot stance phases (phases 4 and 8) last longer than the other phases. This rhythm alteration may be very slight—a hardly noticeable deviation from four even beats. Or the irregularity can be quite distinct, so the horse’s gait looks almost like a trot. We can also hear a difference between a correct tölt and a trotty tölt. In a trotty tölt, we hear a rhythm with longer and shorter intervals between individual steps. While the footfall sequence remains the same, the beats are now uneven: LH—LF-RH—RF, which sounds like *tuc—kah-tuc—kah*.

The opposite of a trotty tölt is a pacey tölt. In the pacey gait variation, the duration of the lateral two-foot stance phases (phases 2 and 6) is elongated. A pacey tölt looks as if the lateral legs move forward almost at the same time. The footfall of the pacey horse is still a four-beat, but the altered length of the two lateral stance

phase (LH-LF—RH-RF) produces a rhythm noticeably different from that of a correct tölt. We hear *tuc-kah—tuc-kah*.

When riding both trotty tölt and pacey tölt, we not only hear that the horse is moving differently, we also feel it. Much of learning how to ride an Icelandic horse involves developing a feel for the rhythm of the tölt and noticing when the horse is shifting toward trotty tölt or pacey tölt in time to apply the proper aids and recover a clear tölt rhythm.

OTHER FOUR-BEAT GAITS

Now that we know what tölt looks like, how do the four-beat gaits of other breeds compare? Where do these gaits fit onto our continuum?

Understanding gait differences is challenging. To make things worse, some gait definitions have changed over time, and some are still in flux. Different breed associations describe and interpret their gaits in different ways. Thanks to FEIF, the International Icelandic Horse Association, we do not have to deal with national or even local interpretations of our four-beat gait. A tölt in the U.S. should look and sound like a tölt anywhere else in the world. But the same is not true for other breeds of horses.

The tables on the next page list a lim-

ited number of the many four-beat gaits, according to their footfall rhythm and phases. Using only two parameters to explain a gait is certainly a simplification, but it helps us to classify the gaits and gives us a glimpse into what each one is all about.

We need to keep in mind, however, that due to their conformation and neuron wiring, different horse breeds are distinct in their way of moving, irrespective of the actual gait performed. For example, Saddlebreds are known for their high knee and hock action. Paso Finos are expected to show high collection and as little forward movement as possible, while maintaining rapid footfalls. Peruvian horses have very loose shoulders, resulting in the so-called “termino,” a distinctive outward-arching movement of the front legs. Tennessee Walkers are bred for reach and “overstride.” Icelandics are bred to show the tölt at both slow and fast speeds, with high, wide, ground-covering movement at the higher speeds.

Often, any gait that shows the slightest shift away from trot and toward a four-beat gait is labeled a “lateral gait.” This is not correct and leads to misunderstandings. The tölt (provided it is correct, with an even beat) is not a lateral gait and should not be called such!

Another term for the four-beat gaits is “ambling” gaits. This term, used broadly, can describe a tölt, as well as any other four-beat variation.

In the following, I will highlight some of the more commonly encountered four-beat gaits.

FOX TROT

The fox trot is the signature gait of the Missouri Fox Trotter. This breed was developed in the Ozark Mountains of Missouri in the middle of the 19th century, because the farmers there needed a sure-footed and smooth riding horse for difficult terrain and slippery clay surfaces. The Fox Trotter breaks up the two-beat trot into a diagonal four-beat gait that is ground-covering and has a speed range of 7-8 mph.

On our gait continuum, the fox trot sits between the trot and the tölt. Listening to the gait, we would probably say that it sounds like a trotty tölt. However, the pick-up and swing of the legs is different. As you can see in the photo, a fox trotting horse looks quite different from a tölting

Isochronous 4-beat gaits

Alternating 1- and 2-leg stance phases	Tölt	Icelandics	Iceland
	Rack, Single Foot	American Saddlebred, Rocky Mountain Horse, Kentucky Mountain Horse	USA
	Marcha Fina	Paso Iberoamericano	Costa Rica
	Revaal	Sindhi Horse	India
	name?	Mongolian Horse	Central Asia
Alternating 2- and 3-leg stance phases	Running Walk	Tennessee Walker	USA
	Flat Foot Walk	Tennessee Walker, Missouri Foxtrotter	USA
	Classic Fino (slow) Paso Corto (moderate speed) Paso Largo (faster)	Paso Fino	Columbia, Puerto Rico
	Marcha Picada	Mangalara Marchador	Brazil
	Paso Lano	Peruvian Paso	Peru

Uneven 4-beat gaits

Diagonal 4-beat	Trotty tölt (faulty)	Icelandic	Iceland
	Fox trot	Missouri Fox Trotter	USA
	Trocha (faulty)	Paso Fino	Columbia
	Marcha Batida	Mangalara Marchador	Brazil
Lateral 4-beat	Pacey tölt (faulty)	Icelandic	Iceland
	Stepping Pace (often faulty)	Various breeds	USA, worldwide
	Sobreandando	Peruvian Paso	Peru
	name?	Mongolian Horses	Central Asia

Different breed associations describe and interpret their four-beat gaits in different ways. This table lists a limited number of the many four-beat gaits of various horse breeds, according to their footfall rhythm and phases. Isochronous gaits like tölt have four even beats.

Icelandic. Some people say that a fox trotting horse looks as if it is walking with its front legs and trotting with its hind legs. It has an elevated head, a characteristic head shake, and a noticeable bobbing of the tail.

FLAT FOOT WALK

We see this gait in Tennessee Walkers and other breeds. The flat foot walk (or flat walk) is sometimes called a foundation gait, because it builds up the horse's top line, and because the fox trot, the running

walk, and even the single-foot or rack gaits can be developed from it.

A correct flat foot walk is a four-beat gait with each foot set down and picked up with equal timing. The head shakes in time with the rear feet. The hind legs move without high hock action, and there is no bounce in the tail. Two or three feet are always on the ground. While the flat foot walk has some impulsion, relaxation is always maintained.

RUNNING WALK

Speed up a flat foot walk, and a Tennessee Walker will change gears into a running walk. This gait is extra smooth, with a gliding motion when looked at from the side. Compared to the flat foot walk, the running walk has a more pronounced reach of the hind legs and a rolling movement of the shoulder. The horse is supposed to stay relaxed and to exhibit a lot of drive from its hind legs, without hock action. Losing relaxation would create a rack-like gait, which is considered a fault in competition.

RACK AND SINGLE FOOT

Rack and single foot are possibly the closest gaits to the tölt. They are both isochronous four-beat gaits with one- and two-foot stance phases. A rack can range in speed from 6-7 miles per hour over long distances, accelerating to 16 mph over short distances, or even up to 30 mph under racing conditions. The horse's head is slightly elevated, and there should be no head nodding or tail bobbing.

The main difference between a rack and a single foot is the speed. According to the North American Single-footing Horse Association, if the rack is ridden very fast, the two-foot stance phase diminishes in length, and it appears as if the horse has only one-foot phases (hence the name "single foot"). However, I've discovered that some authors and other breed associations call the slower version of the gait "single foot" and the faster version "rack."

Rocky Mountain horses, Kentucky Mountain horses, and Saddlebreds come to mind when we talk about the rack. The gaits of all three breeds vary from economical to showy depending on the situation. Other breeds, including the Tennessee Walker and the Fox Trotter, are capable of racking, but this gait is generally not considered desirable in those breeds.

PASO FINO GAITS

The Paso Fino horses of Columbia and Puerto Rico have several speed variations in their four-beat gaits. From slow to fast, these variations are called the classic fino (or paso fino), the paso corto, and the paso largo. All of these gaits have an even four-beat rhythm. The classic fino (paso fino) is fast-stepping, but very slow in the sense of not being ground-covering. If executed well, it is very collected and balanced, with impulsion from the hind legs,



A Sindhi Horse in the revala gait. The photo catches the moment of the one leg stance phase of the right hind leg. Photo by Sudip Adhikary, courtesy of gujjublog.wordpress.com author Bikramaditya Guha Roy.

and it demonstrates “brio,” that is, vigor and a proud spirit that is willingly under control.

Only a few Paso Finos can perform the classic fino gait; it is used mainly during competitions. In classic fino classes, the horses might be ridden on a “fino strip,” a path made from wooden planks. The sound of the horse’s hooves hitting the wood helps the judge assess the evenness of the footfall.

The paso corto is a gait of moderate speed; it’s comfortable and is the gait of choice on trail rides. The paso largo exhibits extended strides and is the fastest four-beat gait of this breed. Some Paso Finos will also perform the trocha, a diagonal four-beat gait similar to our trotty tölt. While this gait is very comfortable to ride, it is generally discouraged and is considered a fault in competitions.

STEPPING PACE

The stepping pace is what we in the Icelandic horse world describe as a pacey tölt. While the stepping pace can be smooth to ride, it presents problems for both horse and rider. First, when a stepping pace is

sped up, it tends to turn into a two-beat pace—which is not a desired gait in breeds other than Icelandics and Peruvian Pasos. More importantly, the stepping pace can create stiffness and a hollow frame. That is why horses with a strong lateral orientation tend to hollow their backs, creating saddling problems and risking potentially serious hock and stifle issues.

The only breed I found where the stepping pace is an accepted gait is the Peruvian Paso. One of their two specialty gaits is called the sobreandando. The timing of this gait is slightly pacey and it is described as fast, but it still flows without the characteristic side-to-side motion of a pacing horse. The sobreandando is performed in moderation only; the gait used more often is the slightly slower paso llano, which is another isochronous four-beat gait.

INDIAN BREEDS

Many different horse breeds around the world (both extinct and contemporary) have the natural ability to move in some kind of four-beat gait. Instead of trying to list them all (and they all deserve it), I would like to highlight some breeds that are indigenous to

India and Mongolia.

There are at least eight distinct indigenous horse breeds in the Asian sub-continent of India. Most of these Indian breeds are very rare for historical reasons. During the period of British colonialism, the British suppressed the breeding of native Indian horses, as they favored the Arabians and Thoroughbreds they brought with them. After Indian independence in 1947, breeding of native horses declined even further, to the extent that they became endangered. In the 1990s, the Indigenous Horse Society of India was formed to preserve these special breeds.

One such breed is the Marwari horse, which originates in the Kathiawar region of northwest India. The Marwari is the best known of the Indian breeds, due to its iconic inward-curling ear tips. However, Marwaris are still very rare: Only about 1,000 horses of this breed exist. Another indigenous Indian breed is the Sindhi horse, which comes from the Kutch area in northwest India and from the Sindh area that is now part of Pakistan. The Sindhi breed can be traced back for millennia, all the way to pre-historic India; nowadays just over 3,000 purebred Sindhi horses are registered. Horses of both breeds

stand 14-15 hands tall and are very elegant and extremely hardy; both are capable of withstanding India's very hot temperatures.

Not all Marwari and Sindhi horses are gaited, but the ones that are perform a four-beat gait called the revaal (sometimes spelled rewal, reval, or rehwal). The Marwari revaal is quick and high stepping, similar to a paso fino. The Indians use this gait mainly in the desert to cover long distances in comfort. The Sindhi version of the revaal more closely resembles the fast tölt of an Icelandic (see the photo). Bikramaditta Roy writes that speeds of 28 mph have been reported and that a Sindhi "can cover a distance of 65 kilometres (40 miles) with a rider, alternating between slow and fast paces, in three to four hours."

There are about 15 to 20 horse races each year in the Kutch and neighboring areas, with the winning prize money ranging from 25,000 to 50,000 rupees (which roughly corresponds to the earnings over 3-6 months of an average person in these rural areas). Besides racing, Sindhi horses are used for farm work and cattle herding.

THE MONGOLIAN HORSE

The Mongolian horse originated in the deserts and steppes north of the Himalayas. Mongolians are of special interest to us as owners of Icelandics, because genetic studies have shown that today's Mongolian horse and the Icelandic horse share a common ancestry.

It is currently thought that Norse traders brought early Mongolian stock from Russia to Sweden, where these horses became the foundation for breeds like the Norwegian Fjord and the Nordland/Lyngen horse. Further trading with Britain brought the early Scandinavian horses to the British Isles, where they became the ancestors of the Exmoor and Shetland ponies, as well as the Connemara and other breeds. The Vikings, bringing horses from Scandinavia and the British Isles to Iceland, bred the Icelandic horse out of those imports. (For a detailed description, please read "Detecting Icelandic Horse Origins" in Issue Four 2012 of the *Quarterly*).

Mongolian horses are believed to have remained unchanged for centuries. These frugal and hardy 12- to 14-hand horses were the long-range vehicles of Genghis Khan's armies; they helped Mongol soldiers conquer much of Asia and eastern Europe during the 13th century. The Mongols were the first to use stirrups, and many people believe that this new technology enabled them to overcome



A Mongolian Horse at a pace race in Bayahongor, in the Gobi Desert. The rider is turned out in a beautiful garment (called "deel") typical of the nomadic tribes of Mongolia. Photo by Susan Fox.

the incredible distances of Genghis Khan's empire.

There are now over 3 million horses roaming the Mongolian steppes (more than the human population), living in an almost wild state. They survive temperatures between 105 F in the summer and -25 F in the winter, with no food besides what they can find for themselves. Providing transportation, milk, hair, and meat, these horses are the livelihood of their nomadic owners. But the Mongols take a hands-off approach to breeding. Any four-beat gaits or pace are a product of chance, rather than systematic breeding as we know it, and only a fraction of the Mongol horses can perform such a gait. Looking at pictures of gaiting Mongolian horses, it seems to me that their four-beat gait shows a wide spectrum, from trotty to pacey, when doing moderate speeds, although there seems to be a true pace when the horses go fast.

Susan Fox, an American photographer who has traveled throughout the Mongolian steppes, described to me how she once came across a horse race. While Mongolians usually race their horses in gallop, this one was a pace race on a dirt oval! (See the photo taken during that event.) Susan explained to me: "They don't breed for the ambling gait, they just encourage and train it in horses that do it naturally. It's desirable because of the smoothness of the gait. The regular horses have a shortened-up trot and canter, which can be pretty uncomfortable (voice of experi-

ence). This is also why the Mongols stand in the saddle to ride if they're really trying to get somewhere."

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IS YOUR NOSEBAND ON RIGHT?

BY ALEX PREGITZER

Though it is safe to say that the majority of Icelandic horse riders, dressage riders, and general English-style riders use some sort of noseband, that small piece of equipment inspires a lot of discussion about its correct fit and appropriate use. Fitted correctly, the noseband can be an important part of our tack. If not fitted correctly, it can cause the horse discomfort—or even worse—injury. Or it may simply be useless.

The Danish Equestrian Federation wanted to know more about the correct use of riding equipment, including nosebands. They conducted a comprehensive, scientific, three-year survey that started in 2014 and will soon be published in scientific journals. The study included 3,000 horses (not all Icelandic horses) and examined nosebands, bits, spurs, and whips across multiple disciplines. The purpose of their research was to clarify the impact those types of tack have on horses and ponies, and to provide evidence that can be used as a basis for the development of tack regulations. Some findings of the study have been reported on various websites online (see the list below).

The study was conducted by the Federation's veterinarian, Mette Uldahl, who also acts as a vet for the Federation of International Equestrian Sports, FEI. In this article, we will focus on the study's findings regarding nosebands, since the usage of spurs is rather uncommon in Icelandic horse riding, and because the study found the incidence of lesions due to use of whips to be very low. Bits would need an article all on their own.

TOO TIGHT?

The Danish study looked at the type of bit a rider was using, then measured the tightness of the noseband and examined the horse's mouth for sores and oral lesions.

"The tightness of the nasal band had a very clear connection to the occurrence of oral lesions," the Danish Equestrian Federation said in a translated statement. "The tighter the nasal band was, the more



Is my noseband on right? According to a new study, there should be a 1.5 centimeter (0.59 inch) space between the horse's nose bone and the noseband. Measure the diameter of your fingers to give yourself a handy tool! Be sure the noseband is not placed too high or too low, also.

mouth lesions were recorded. Equipment that started at higher level of competition had a higher prevalence of oral lesions than lower-level equipment."

Based on the findings of this study, the Danish Equestrian Federation has become the first national federation to introduce a clear limit on the tightness of nosebands. Under their new regulations, there must be a minimum space of 1.5 centimeters (0.59 inches) between the horse's nose bone and the noseband. This rule applies to all equine disciplines in Denmark; it went into effect in January 2018.

In December 2017, when this article was being written, technical delegates were still testing different measurement meth-

ods to find a tool that will effectively measure that 1.5 centimeter-diameter space. Once a tool is agreed upon, federation officials will check equipment at various venues. If a noseband is too tight, the rider will be asked to adjust the fit; a rider who refuses to adjust the noseband will not be allowed to compete. Sanctions will be put in place for repeated occurrences.

JUST RIGHT?

The Danish Equestrian Federation hopes the findings of this study will be used to educate riders, trainers, and judges alike to what a correctly fitted noseband looks and feels like.

FEIF, the International Icelandic

Horse Association, has had similar guidelines in place for many years. The FEIF judging guidelines encourage the use of horse friendly, well-fitting tack. And they provide a way to respond when issues with tack arise. FEIF judges are asked to watch out for tight nosebands and other ill-fitting equipment in competitions, and judges have the authority to ask riders in sport and breeding events to adjust their nosebands if they are not fitted correctly.

It is not as easy to educate leisure riders about such rules or regulations. That is why we are printing this article in the *Quarterly*—we hope you will examine the fit of your horses' nosebands, and share this valuable information with your riding friends.

WHY USE A NOSEBAND?

Some readers may be asking themselves why we use nosebands in the first place. We printed a series of articles about bits and nosebands and how to fit them in Issue Three 2012 of the *Quarterly*; you can download these articles from our archive at www.icelandics.org.

But to summarize the benefits of a well-fitting noseband:

1. A noseband can help keep the bit more quiet in the horse's mouth. Since a noseband redirects some pressure to the nose, not all the pressure is on the horse's mouth, making the bit more comfortable. There may also be less movement of the bit, and many horses seem to respond well to that and seem happier when ridden.

2. A noseband can make the ride safer. In an emergency stop (disengagement of the hindquarters), the rider must shorten one rein and apply a lot of pressure on that rein. Without a noseband, the bit ring may slide into or through the horse's mouth. (A chin strap can be just as effective to prevent this as a noseband.)

3. A noseband will prevent the horse from opening its mouth excessively. A well-fitting noseband must, however, allow the horse to open his mouth quite a bit to allow freedom to move and to avoid any discomfort.

FURTHER READING

<http://www.grandprix-replay.com/us/article/4717/danish-forbid-the-use-of-tight-nosebands>

<http://www.eurodressage.com/equestrian/2017/02/03/investigation-noseband-tightness-levels-competition-horses-0>



At top, left and right, this English cavesson (without the flash noseband) is properly fitted, with space for about two fingers between the protruding cheek bone and the top of the noseband. Row two, left and right, this drop noseband is properly fitted, with space for about four fingers between the noseband and the nostrils. Row three, at left the drop noseband is too high; at right, it is too low. Bottom, this noseband is too loose; there should be 1.5 cm (0.59 inches) of space between the horse's nose bone and the noseband.



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A LOVE STORY

BY FLORIE MILLER

We are all reading this magazine because we are in love with the Icelandic horse. We love their proud attitudes, their smooth and fast gaits, their beautiful colors, and their luscious hair. We love how they connect us to other Icelandic horse people all over the globe. And, let's be honest, isn't it fun to show "big horse" people how tough and strong our Icelandics are on the trail?

There are not too many Icelandic horses in this country, so I'm curious to hear how you fell in love with the Icelandic horse. Here's my story—I hope you'll share yours in a future issue of the *Quarterly*.

PNY CAMP

When I was about 13 years old, my friend Eva told me about this wonderful pony camp she was going to that summer. I wanted to go too! I bugged my parents for weeks to get their okay and to come up with the money. Summer came, and off we went—a three-hour train ride from Amsterdam all the way to the south of Holland, where the owner of the camp would pick us up.

At the train station we used a pay phone to call (yes, this was a long time ago, before cell phones). After an hour or so of anxious waiting, a sputtering 2CV cargo van came around the corner. In this van was an old lady with long gray hair—honestly, she was quite wild and scary looking. This was Miek Last, the owner of the pony camp. A retired ballet dancer from Amsterdam who decided to do "something different," she was one of the first people in Holland to have Icelandic horses.



The author at pony camp as a girl.



The van to pony camp: Just getting there was an adventure! The camp's owner, a retired ballet dancer, was one of the first people in Holland to have Icelandic horses.

FREEDOM

Upon arriving at the farm, it didn't take me long to realize that this was a completely different situation from the uppity riding school I was used to. There, the ponies were confined to stalls, where they were tied up to the wall. There, we saw nothing of the outdoors, as our lessons were confined to an indoor arena in the style of the Spanish riding school in Vienna.

Miek's farm, in the rugged countryside on the border of Holland and Belgium, on the contrary, seemed to be held together with wire and duct tape. The kitchen was a mess! It smelled of moldy leftovers left on the counters—and some of the geese that lived in the yard had apparently been in the kitchen too. But it also smelled of something different: Freedom!

Soon we went to meet the horses. About 10 girls piled into the small van, and we drove a little way to the pasture. To me that field seemed enormous. It was overgrown with thistles and weeds and fenced in by a wobbly fence. We couldn't even see the horses. This was the good life for a horse! We yelled "come and get it," and out of the blue about 10 wild-looking horses came running down the hill, a jumble of manes, tails, and colors, and gobbled up the stale bread we had brought to lure them in.

NO SADDLES

Finally it was time to ride! There was not a saddle in sight. Miek's theory was that riding without a saddle was better for our balance and connection with the horse—but I've always suspected that there was just no money for saddles. We bridled our horses under the supervision of some older girls who were our camp leaders. These girls were just a few years older than we were, but they seemed so grown up and cool.

Then we took off—at a comfortable walk at first, but as soon as we had some open ground in front of us, our walk turned into a wild gallop. This was living! We rode and rode until the horses ran out of steam. We hugged our horses and giggled with our new friends. We spent hours on horseback exploring the countryside. Quite a few of the horses were extra smooth and comfortable to ride—that is how I found out about tölt. I don't have to tell you that these natural tölters were the most popular horses on the farm.

WILD AND WONDERFUL

There were two small herds of Icelandics at the camp, and each herd had its own stallion, Odin and Stjarni. These herds were mostly very peaceful, because the stallions had their mares and everyone was happy. The foals and other youngsters just tagged

along on our rides, making for a fun atmosphere. It could get challenging, though, if your mare was in heat and the stallion was “in the mood.” Then you’d better hop off your horse real quick, because there was no stopping them. The even trickier part was to not run into the other stallion and his herd when you were out riding. The stallions would definitely want to fight over the mares!

What an eye-opener all this was for me, seeing horses living out in nature, almost as wild and free as a horse could be. They seemed so happy and so alive! We were riding just for the fun of it, not worrying about getting the right lead in canter or posting correctly, and with no instructor yelling at us from the center of an arena. Riding was about going as fast as your horse could go, or enjoying the calm of a quiet tölt while chit-chatting with your new friends. It was about the pure pleasure of sharing your lunch with your horse, or riding into the lake for a swim.

Long story short, that summer I fell in love with the Icelandic horse. These wild, wonderful creatures were the keys to



At the pony camp in Holland run by ballet dancer Miek Last, the Icelandic horses lived wild and free—and the girls did too, riding bareback and swimming in the lake. How did you fall in love with the Icelandic horse? Tell us your story.



adventure, camaraderie, and fun. Their smooth gaits, big manes, and amazing personalities made a lasting impression on me. I could not go back to riding in an indoor riding school. Ever since then I have tried to find stables where horses and people can be themselves, and where nature and friendship are just as important as riding technique. Now, almost 30 years later, you can still find me roaming the countryside on the Icelandic horses who bring so much joy to my life.



THE HORSE AS THERAPIST: PART 1

BY THERESA J. JORDAN

This article is about understanding the Icelandic horse-human relationship and its role in emotional healing. Part 2 in this series will be the “how to” of healing oneself with Icelandic horses. Before we begin, please bear in mind that this pair of articles is intended to help with everyday emotional challenges common to virtually all of us. If you experience emotional challenges that are sufficiently severe to interfere with the quality of your life, please consult a mental health professional. What is offered here can be used as an addition to professional help, but not as a substitute, particularly in the presence of severe depression, traumatic stress responses, or intentions to self-harm.

The importance of the horse-human relationship was recognized as long as 2,300 years ago, by Xenophon in ancient Greece. But the healing power of horses was not fully utilized until the mid 20th century, when hippotherapy was developed in Germany. Hippotherapy centered around riding activities to help people with physical disabilities, such as providing a means of movement to those who had lost the use of their legs. Not until 1999 did people begin to realize that horses can heal our emotional wounds as well as our physical ones. In that year, Temple Grandin published an article explaining how a child diagnosed with autism had finally said his first words while participating in a therapeutic riding program. Today we are aware of many programs which engage horses in the psychological healing of humans, including the War Horse program, which was designed to assist combat veterans suffering from post-traumatic stress disorder (PTSD). These psychological approaches generally fall into the category called equine assisted therapy.

PREDATOR AND PREY

The relationship between human and horse is special in the universe of possible connections. Not only is it an interspecies connection, but it is also a connection between a predator and a prey animal.

Humans relate deeply to other animals as well. Dogs, for example, are the most



Terry Jordan and her gelding Stjarni from Blue Moon. When we engage in Deep Play with our horses, we leave our usual social norms behind. Horses can enable us to feel, if only for a moment, unconditional positive regard for ourselves and others. Everything that matters to the horse is happening right here, right now, in this moment with us. Photo by Barry Koster.

commonly identified therapy animal. However, dogs, like us, are predators. Horses, on the contrary, embody the most outstanding characteristics of prey animals. Horses have the fastest reaction time of any mammal. If the horse you’re working with wants to kick you, that kick will happen before you even realize it’s coming—especially if you fail to process the horse’s body language. Horses are large and powerful and have an estimated 300% greater capacity to process emotions than do humans. Horses have enormously well-tuned systems of vigilance and are neurologically wired for flight, as well as fight and freeze actions. Equine survival is based on their ability to take immedi-

ate evasive or defensive action, which gets expressed as a literal burst into movement. When a horse does not want to interact with the ultimate predator, our experiences can turn unpleasant pretty quickly.

Yet contact with horses has long been known to make people feel good. As Lubbock said, “There is nothing so good for the inside of a man as the outside of a horse,” while Surtees stated, “There is no secret closer than what passes between a man and his horse.”

One reason is that both humans and horses are highly social animals. In the horse, this social quality can be observed in herd behavior, when horses in their natural

setting seem to react as though with a single mind and body. Relying on herd behavior for their very survival, horses are incredibly fine-tuned to nuances in social structure, as can be seen when the pecking order is being sorted out among new herd members.

WHY ICELANDIC HORSES?

Icelandic horses are potentially the ultimate choice for a human-horse relationship. Because the breed developed in the near total absence of natural predators, our horses are not as hypervigilant as some other breeds. They therefore lend themselves more easily to equine assisted therapy.

If you trail ride with a mixed group of breeds, note the differences in equine behavior on a windy day. Wind makes many, if not most, horses hypervigilant because it interferes with one of the horse's most important survival senses: hearing. For most breeds, the rustling of bushes on a windy day obscures the sound of approaching predators and results in horses behaving in ways we call nervous. Your Icelandic horse will also most likely show some extra alertness on a windy day, but she will use this alertness in ways that are helpful, not "over the top," since she is not expecting a mountain lion to leap out of those rustling bushes.

My first Icelandic horse, a fast five-gaited mare named Stína frá Grund, came from Iceland at age six, one month before I bought her. I was riding out alone on a very windy day along a heavily wooded path on this horse who had only recently been introduced to thick woods. Almost simultaneously, I heard a series of loud cracks and felt Stína surge forward and leap. Two trees had blown down. With her surge forward, Stína had moved us beyond one of the trees, and with her leap, a perfectly executed jump, she successfully evaded the second tree, which had come down in front of us. All of this happened before I had figured out what was going on, let alone formed a plan of safe action.

As I processed this near catastrophic situation, I felt shaky and sweaty and realized that I would feel much differently about riding out on windy days in the future. That experience was "frozen" in my human, analytical left brain, where stimulus generalizations would be made: I would from then on be more anxious about wind in choosing when and where to ride. Rationally learning that some terrain is unsafe

under certain conditions can be viewed as a useful addition to my knowledge about trail riding. However, the frozen pieces taking up residence in my brain would now trigger at least some anxiety when riding in wind—even in the absence of large trees—or if an unanticipated gust blew up on what had started out as a calm day. As a human, my emotional defenses would then come into play: I would feel the need to block and endure my fears (another left brain function).

Stína, however, would never develop these defense mechanisms. While horses have incredible memories, and both can and do form stimulus generalizations, they react to their lives in the immediate moment without relying on left brain analyses. Stína took an incredible, essential, and potentially life-saving evasive action. It was the sum total of what her survival instinct propelled her to do in that instant. Her ability to react physically enabled her to utilize the surge of chemicals that had been released in her brain. While she might develop some heightened vigilance to wind in this new, strangely forested country, she would not develop disabling fear responses because two trees fell down. She would not have panic attacks on windy days, nor would she develop a serious stress reaction or a negative judgment about herself as a horse, resulting in depression. These are reactions only humans have.

Since the publication of Peter A. Levine's *Waking the Tiger: Healing Trauma* in 1997, we commonly accept that while both humans and other animals are vulnerable to trauma, the most severe instances of traumatic reactions experienced as PTSD exist only in humans and are found nowhere else in the natural animal world. In my example of the falling trees, I was helpless. Without my horse's reactions, I would likely have been a victim of severe or even lethal physical injury. Scientists believe that all animal species are hardwired to respond to a life-threatening event with three options: fight, flight, or freeze. When humans are unable to react to a traumatic event with either fight or flight, the surge of brain chemicals that gets released but not acted upon is frozen, i.e. thwarted by our inability to escape or to defend ourselves. The dramatic difference between humans and horses, in terms of PTSD, exists because the horse lives honestly in the moment and discharges her energy in that moment. There is no need for the horse to freeze her

emotional reactions, because she has discharged and released this energy through her physical reactions.

HONESTY

For true human emotional healing to occur, we must be willing to venture deeply and honestly into our areas of emotional weakness. Such healing is often done in the context of psychotherapy, where a safe zone helps us confront our demons. However, even in psychotherapy, we humans consistently evaluate our social interactions—even with our therapists. A deeply wounded human might, as well, be unable to express her pain verbally, as though the feeling heart had shut itself off from articulating emotion. Here is the frozen zone, where nonverbal communication with horses can become a crucial starting point for the beginning of healing.

Horses, unlike humans, do not develop barriers to their feelings and experiences. When they relate to us, their behavior is an honest representation of how they feel in every moment of their lives, and in every moment of their relationship with us—*Horses Never Lie*, as the title of the book by Mark Rashid says. Said another way, with horses what you see is what you get. In their interactions with us, horses do not engage in judgments about themselves—about how they look or even how they perform.

Thinking honestly about ourselves—our true selves, rather than the false selves we typically show to the world—to whom do we feel completely comfortable revealing our most painful failures, our deepest wounds, and our greatest insecurities? If we are so fortunate to have in our lives humans with whom we feel such comfort, do we nevertheless still fear their negative judgments or even the possibility that their love for us will be lost or diminished once we lay bare our truest self?

For those of us with a deep relationship to horses, when we feel a desperate need for the touch and scent of our horses, a need to rush to the barn to encircle our horses' necks with our arms and bury our faces in their manes, do we worry about the way we are dressed, whether our hair is combed, whether we have recently bathed, how we smell, or any other of an infinite number of attributes that have no meaning to the horse, but are taken into account by other people?

Icelandic horses, to an outstanding

degree, do not seem troubled by humans who are in some way “different,” regardless of whether that difference is a human lameness due to pain or injury, the unusual cadence of a person’s speech who is impacted by an autism spectrum disorder, or the disordered attire of a person suffering the effects of schizophrenia.

If we have spent enough time around horses to have learned to stop anthropomorphizing them, we will have learned that what matters to the horse is none of the above. What matters is our emotional state, and the extent to which that state will result in comfort or discomfort for the horse. Horses know, from rather far away, the difference between an angry human and a human who is sad, though each of these humans might approach the horse sobbing and in tears.

DEEP PLAY

For human healing to begin within a human-horse relationship, we need something best captured by the concept of “Deep Play.” Psychotherapy and horseback riding are both recognized as instances of this experience. How interesting that such different avenues for healing can come together in this way!

Deep Play consists of those experiences in our lives when everyday rules are suspended, and new or special game rules apply. Under these conditions, we can take the risks needed to try on and explore new selves. Think of the notion of play as dramatic art: the use of masks, costumes, scenery, etc., permit the pretense of actors being someone other than who they are in their “real” lives and also give them the power, for a time, to draw us out of our “real” lives and into the life of the play.

The classic work on play was published by Johan Huizinga in 1938. He points out that play is the province of all animals, with an illustration of how dogs use “play positions” to invite each other into a game with specific rules. The dogs run around, pretend to be angry and to fight, but there’s no serious biting because this is for fun and learning. Among our horses, we observe their wild frolics together, the playful grooming-biting, and the exuberant free running.

Play therapy with children suspends their everyday pains and problems at home or school, and encourages entering a safe space where risk-taking is encouraged.

While a child might be punished for losing a cell phone, losing all their property in a game of Monopoly has no real consequences. It is often during these times of unimportant losses during play therapy that a child will begin to speak about the real losses she so deeply fears, such as the loss of the love of her parents. Play can be a wonderful doorway to areas that are just too scary to begin talking about.

Interacting with our horses can serve a similar purpose for us. When we engage in Deep Play with them, we leave our usual social norms behind. Horses can enable us to feel, if only for a moment, unconditional love or unconditional positive regard for ourselves and others. The healing effect of unconditional acceptance can be brought back into the “real” world to help us better negotiate our everyday anxieties, depressions, social problems, and feelings of low self-worth. In Deep Play, we can risk “waking our tigers,” that is, venturing into the recognition, revelation, and eventual acceptance of our deepest wounds and traumas. We can learn to feel compassion for ourselves, as well as how to suspend obsessive judgment about who we are and how we appear to others.

Once, during an equine assisted therapy session for a group of combat veterans coping with the effects of severe PTSD, a truck backfired. The sudden and unexpected loud noise triggered a yell of “incoming” and one person dove for safety, a response that was highly misunderstood and even berated by other humans in our group. To me, it was more interesting to note the horses’ behaviors. While some of them looked around, paying attention to where they should place their hooves now that a person was lying in the dirt by their feet, none of them showed any signs of negative judgment, fears, or concerns about this individual, and continued to work with her after the moment had passed as though nothing unacceptable had happened. The horses all seemed eager to resume the Deep Play which formed the cornerstone of that group therapy session.

Deep Play addresses the human needs most crucial for extreme happiness, because it allows for both risk and rapture, testing our limits, and finding out who we really are when pitted against the elements of the natural world. The question often repeated, “Why climb Mount Everest?” can be answered now as a desire to engage in

Deep Play at some of the riskiest and most rapturous levels.

In her 1999 book, *Deep Play*, Diane Ackerman fills in our understanding. After discussing the humility and surrender necessary for Deep Play, and the transcendent states of great joy which become possible, as well as the sense of being more balanced, more focused, and more rejuvenated, Ackerman provides an entry from her experiences among penguins in Antarctica: “Far from home, extravagantly unencumbered, they [the penguins] reminded me of the colorful thrall I’d left behind—cities and limitations, a carnival of possessions, blooming landscapes, family cares and errands, the elaborate rules of social dressage. ... Untethered, my mind roamed the ice floes for hours, devouring each moment, far from any trace of the past or future, unacquainted with my body, light as diamond dust. ... I felt stronger than usual, more adroit, better informed. ... I was alert but also ecstatic. ... My mood was a combination of clarity, wild enthusiasm, saturation in the moment, and wonder. ... I was enjoying a thrilling form of play.”

When we interact with our Icelandic horses, we provide ourselves opportunities for some of the deepest play of all, play that can take us beyond who we are, beyond our current wounds, and into exhilarating and far more healed versions of ourselves. When we learn to engage in Deep Play with our horses, we are joining a process filled with risks and raptures, leaving behind even for a moment the rules of human culture and experiencing, perhaps for the first time and perhaps for only a moment, the incredibly wonderful impact of unconditional love.

As we move more deeply into our healing relationships with horses, one of the most important things we can take with us is the knowledge that everything that matters to them, our horses, is happening right here, right now, in this moment with us. Nothing else that we have achieved, have failed to achieve, or think we should attain or become in our lives, matters.

About the author: Theresa J. Jordan is a clinical psychologist who owns a private practice called Healing Minds Psychology Services, sees additional humans and their therapy animals at the Aiken Counseling Group and Psychiatry, and lives on her Red Mares Ranch in Aiken, SC, with four horses, four dogs, two huge kittens, and one human.

A brown horse with a white blaze on its face is running through a snowy field. The horse's mane and tail are blowing in the wind. The background is a bright, overcast sky.

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Family	\$65/year. Two adults and unlimited children living in the same household. Adults vote.	Farm Listing Fee:	\$.....
Junior	\$35/year. One child (under 18 years). Not eligible to vote.	World Championships Donation:	\$.....
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Foreign Friend	\$70/year. One adult non-US Resident/non-US Citizen with limited benefits. Not eligible to vote.	Total:	\$.....

Make checks to "USIHC" and mail to the MAIN OFFICE address.
Congress memberships are for one year. Your membership is active on receipt of payment and expires one year later.

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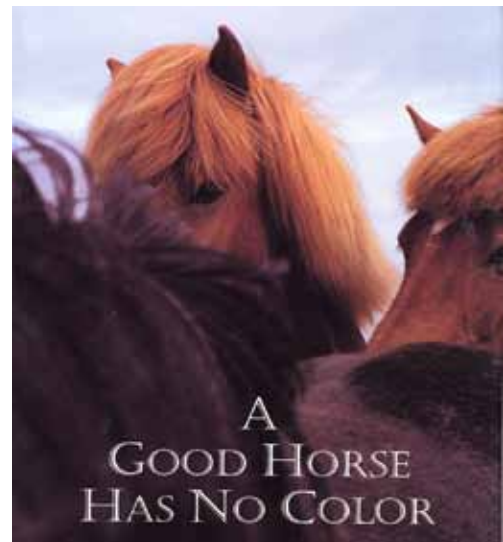
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The owners of the farms listed below have offered to have you visit in order to become acquainted with the Icelandic horse. Some are breeders, some importers, and some are interested in breed promotion alone. Their listing here does not constitute an endorsement of any kind by the USIHC.

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Will & Asta Covert
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info@tolt.net
www.tolt.net

Valkyrie Icelandic
Lauara Benson
1 Duane St. #33
Redwood City, CA 94062
(650) 281-4108 (phone)
laura@valkyrieicelandic.com
www.valkyrieicelandic.com

COLORADO

Hestar Ranch
Monika Meier-Galliker
P.O. Box 1744 / 30420 C.r. 500
Arboles, CO 81121
(970) 883-2531 (phone)
m.meier@hestar-ranch.us
www.hestar-ranch.us

Lough Arrow Icelandics
Andrea Brodie, D.v.m.
22242 County Road 46.0
Aguilar, CO 81020
(719) 680-2845 (phone)
fiddlinvet@gmail.com
www.coloradoicelandics.com

Tamangur Icelandic Horses
Coralie Denmeade
5775 Best Road
Larkspur, CO 80118
(719) 209-2312 (phone)
coralie@tamangur-icelandics.com
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FLORIDA

Florida Icehorse Farm
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floridaicehorsefarm@gmail.com
www.floridaicehorsefarm.com

IOWA

Harmony Icelandics
Virginia Lauridsen
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Des Moines, IA 50315
(515) 556-3307 (phone)
virginia@harmonyicelandics.com
www.harmonyicelandics.com

KENTUCKY

Lettleiki Icelandics
Maggie Brandt
6105 Eminence Pike
Shelbyville, KY 40019
(502) 541-4590 (phone)
maggie@lettleikiicelandics.com
www.lettleikiicelandics.com

Taktur Icelandic Horses
Terral Hill & Carrie Lyons Brandt
12501 W Hwy 42 Apt B
Prospect, KY 40059
(502) 409-1924 (phone)
carrieandterral@gmail.com
taktur.horse

MAINE

Boulder Ridge Farm
Brian & Cindy Wescott
1271 Cape Rd
Limington, ME 04049
(207) 637-2338 (phone)
info@bricelandics.com
www.bricelandics.com

Grand View Farm
Charles & Peggy Gilbert
137 North Road
Dixmont, ME 04932
(207) 257-2278 (phone)
(207) 941-9871 (fax)
grandviewfarm@midmaine.com

MASSACHUSETTS

Four Winds Farm
Lori B. Leo
703 Hanover Street
Hanover, MA 02339
(617) 827-2001 (phone)
(781) 829-2276 (fax)
fourwinds@fourwindsicelandics.com
www.fourwindsicelandics.com

Merrimack Valley Icelandics
Neil and Ebba Meehan
282 Main Street
Boxford, MA 01921
(781) 521-0841 (phone)
ebbameehan@me.com

NEW MEXICO

Windsong Icelandics
Ulla Hudson
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733 State Road 344
Edgewood, NM 87015
(505) 615-5050 (phone)
(505) 286-7791 (fax)
windsongicelandics.com

NEW YORK

Sand Meadow Farm
Steven & Andrea Barber
300 Taylor Road
Honeoye Falls, NY 14472
(585) 624-4468 (phone)
toltstar@yahoo.com
www.sandmeadow.com

NORTH CAROLINA

Hulinndalur
Sara Lyter
372 John Weaver Rd
Columbus, NC 28722
slyterz@yahoo.com

OHIO

Beat'n Branch Icelandics
Ron & Sherry Hoover
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Litchfield, OH 44253
(330) 667-2879 (phone)
890hoover@gmail.com

Common Ground Farm and Kennel
Jim and Laurie Blakey
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Mantua, OH 44255-9368
(330) 995-9273 (phone)
commongroundfarmandkennel@gmail.com
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Mountain Icelandic Farm
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19565 Tumalo Reservoir Rd
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(831) 331-0442 (phone)
annette@mountainicelandics.com
www.mountainicelandics.com

Schwalbenhof
Karin Daum
10676 Nw Valley Vista Rd
Hillsboro, OR 97229
(503) 724-9537 (phone)
daumkarin@gmail.com

SOUTH CAROLINA

Black Creek Farm
Sarah C. Elkin
449 Jewell Boone Rd.
Pelion, SC 29123
(803) 894-4514 (phone)
bigdoglady@pbtcomm.net
blackcreekfarm.us



SOUTH DAKOTA

Morning Star Farm
Margaret Hillenbrand
6758 Nameless Cave Road
Rapid City, SD 57702
(605) 381-4956 (phone)
hillenbrandmimi@gmail.com

TENNESSEE

Shady Brook Farm
Marilyn Chapman
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Kingston, TN 37763
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VERMONT

Mad River Valley Icelandic Horses, Llc
Jess Haynsworth
1268 Fuller Hill Rd
Warren, VT 05674
(617) 962-0065 (phone)
madrivervalleyicelandics@gmail.com
www.madrivervalleyicelandics.com

Silver Maple Icelandic Horse Farm
Susan Peters
106 Gilley Road
Tunbridge, VT 05077
(802) 889-9585 (phone)
susan.peters@gmail.com
www.silvermapleicelandics.com

Vermont Icelandic Horse Farm
Karen Winhold
3061 N. Fayston Road
Waitsfield, VT 05673
(802) 496-7141 (phone)
(802) 496-5390 (fax)
horses@icelandichorses.com
www.icelandichorses.com

VIRGINIA

Montaire Icelandic Horses
Antje Freygang
36727 Leith Lane
Middleburg, VA 20117
(202) 372-5324 (phone)
freygang999@gmail.com

WASHINGTON

Evans Farm-Orcas Island
Wanda & John Evans
P.O. Box 116
Olga, WA 98279
(360) 379-4961 (phone)
evansfarm@orcasonline.com
www.icelandichorsesnorthwest.com

Lone Cedar Icelandic Horses
Dawn Shaw
P.O. Box 524
451 E. Murray Road N
Grapeview, WA 98546
(360) 275-7542 (phone)
iceherd@hotmail.com
www.lonecedaricelandichorses.com

Red Feather Icelandics
Dick and Linda Templeton
24 Whitewater Drive
Trout Lake, WA 98650
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redfeathericelandics@gmail.com
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WEST VIRGINIA

Deep Creek Farm
Curtis Pierce and Marsha Korose
537 Fjord Rdige Dr
Mathias, WV 26812
(304) 897-6627 (phone)
cepinwv@yahoo.com
www.deepcreekfarm.com

Icelandic Thunder
Denise & James Taylor
550 Hackers Creek Rd
Philippi, WV 26416-7198
(304) 457-4238 (phone)
icywoman@msn.com
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WISCONSIN

Winterhorse Park Icelandics Horse Farm
Barbara and Daniel Riva
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