

MUG SHOT

By Senessa Steinbaugh

Hi everybody,

We are getting much closer to having our mugs available to you! The image will most likely be similar to the "MUG SHOT" photo included here.



We have chosen a company and are in the process of getting the artwork completed & to them for printing. We won't have an exact price until they are completed, however we are guessing in the range of \$14. - \$18 per mug (discount for orders of 2 or more). All profits from the sale of these mugs is going to support NEMDA Rescue. They will be for sale at all NEMDA events such as Entle Day's or Entlefest and also by calling or e-mailing:

Senesa R. Stinebaugh
505-865-5340 or seansensesena@newmexico.com
Look for an update in the next Entlebook, on the website & on the e-group.

PRA-A LESSON FROM AN ENTLEBUCHER

By Kathy Marshall

As some of you may know, we think Shaman is the world's best dog. She has shared her spunk, sweetness, intelligence, love and wisdom with us for 6.5 years. Shaman is very special to us. She is our four-legged soul mate. She amazes us everyday in the things that she does and 'says'.

Recently, Shaman taught us how important it is to have our dogs' eyes tested. A couple of years ago, Shaman was diagnosed with posterior cataracts. This is the type of cataract which is common to the Entlebucher. We have been monitoring her eyes to make sure that the cataracts were stationary (did not affect her vision). We did two eye tests in 2001 and found that they had stopped growing and did not affect her vision, which was good news. But during the second eye exam, our ophthalmologist reported 'retinal vase looks great but peripheral retinal thinning'. She thought it was just due to old age, as this was not the presentation she had seen in other breeds. But we were concerned. As a breeder of Entles, we have educated ourselves about the potential health issues. We reread the full translated version of the eye study by Dr. Speiss, who is the Entlebucher eye specialist in Switzerland. When we shared this with our eye doctor, she was suspicious. She recommended we do an ERG (electroretinography) which is a much more in-depth test at the microscopic level. At the end of October, the results were conclusive: Shaman had PRA.

Even though we knew that PRA was fairly common in this breed, the diagnosis came as a shock to us. She was over 6 years old and showed no signs of PRA. We thought we were out of the woods. PRA (progressive retinal atrophy) is an autosomal recessive disease. It is inherited. Shaman got the PRA gene from her mother AND father. They are either healthy carriers (will never show signs of PRA, but carry the gene) or have PRA (afflicted.) Neither parent can be clear and clean (does not carry the gene). An afflicted dog can only have parents

who are either afflicted or healthy carriers. An afflicted dog cannot produce clear and clean offspring either. PRA in this breed is late onset, meaning that the dog can show signs of retinal degeneration as early as 18 months and as late as 8 years. Early onset PRA is when the diagnosis can be determined at puppy stage with blindness imminent and so far there have been no cases reported that young. The way PRA in Entles expresses itself is different from most breeds. It progresses very slowly. Ophthalmologists who have been tracking afflicted Entlebuchers are surprised at how slow the retinal degeneration is, which is good news because they slow onset gives the dog plenty of time to adjust.

Some of you might want to know the odds of an Entlebucher developing PRA. Here are some rough breeding statistics. (This is based on Gregor Mendel's model, which is just that, a model. These cases are perfect example of modes of inheritance and cannot be translated literally. It just shows you the potential combinations of what might happen.) His model is based on a litter of four puppies:
If you breed two healthy carriers (HC) you get 1

PRA, 2 HC and 1 Clear

If you breed a HC to a Clear you get 2 HC and 2 Clear

If you breed a HC to PRA, you get 2 PRA, 2 HC

If you breed a PRA to a Clear you get all HC

If you breed a PRA to a PRA then you get all PRA

And of course when you breed a Clear to a Clear you have all Clear

So, how do we know who to breed and who not to breed? We don't. Your breeder may have talked to you about the fact that there are no clear family lines in the Entlebucher breed. At this time, we have no predictive test. The best we can do is to have more Entlebuchers get their eyes examined by a Certified Ophthalmologist. A positive PRA diagnosis will tell us that the parents of this dog are, at best, healthy carriers and should not be bred (according to the Swiss Club breeding rules as well as NEMDA Breeder's Code of Ethics rules.)

Why get the eye test done?

For the past four years, NEMDA has been supporting PRA genetic research and has teamed up with Dr. Simon Peterson-Jones at Michigan State.

Dr. Peterson-Jones and his group of scientists have already identified the PRA gene in other breeds. In order to help Entles, they need as many blood samples as possible from afflicted dogs and their relations. That's why it is so important to have as many dogs tested as possible. We need to send them the blood from dogs who have a known link to PRA.

It's a simple test. Much like a human eye test, the eyes are dilated and an ophthalmoscope instrument is used. No sedation is needed. The cost of an eye CERF exam is only \$25 to \$45 dollars. Any dog that shows



anything suspicious should have an ERG. If the tests come back positive for PRA, then this information can be used to help find the cure. If your dog gets a "normal" ERG (shows no sign of retinal degeneration) after 4 years old, then you can be fairly certain your dog is either a healthy carrier or is clear and will never show signs.

When to get the eye test done?

The best possible scenario would be to get the eyes tested twice, once at age 2 and then again at age 5. If you can only get your Entlebucher tested once, it is best done after they are 4 years old, as that is the normal time frame when they start showing signs.

Taking the plunge to get the test done can be tough. We know what's it like to have our dog diagnosed with PRA. But, it's not the end of the world. Other PRA Entle owners have reassured us that their dogs have adjusted to the gradual vision loss very well. In fact, one totally blind Entle still plays Frisbee. It doesn't cause pain and our Shaman will continue to live a full and active life. Actually, we are glad to know because we will train her and treat her differently knowing that she will eventually lose her eyesight. We are going to teach her the words 'right' and 'left' and get her into the Delta Society Program (Assisted Dog Therapy). Who knows, she might help other physically challenged people and really live up to her name.

Shaman has been spayed and will no longer have puppies. As breeders of a PRA dog we take our responsibility very seriously. All her puppy families have agreed to send in blood samples for the research. This is a bitter/sweet situation as her and her puppies may be the key to finding the gene. We think it is more important to share this knowledge with the Entlebucher community than worry about our "reputation". We are still breeding Bliss who is not related to Shaman, since her eye tests are normal.

Bottomline, the only way to eliminate PRA is to identify the gene that causes it. The only way to identify the gene is to get PRA-afflicted dogs and their relations' blood sent in. (NEMDA will

subsidize \$20 for the blood draw.) The only way to know who is afflicted is to get the eye test done. Finding the cure for PRA all starts with our commitment to getting the test done. If we really want to do what is best for the breed, to breed PRA free dogs, we need the genetic blood test. Then, with careful breeding, future generations of clear dogs can be bred and PRA will be eliminated from the Entlebucher. That will be a day to celebrate!

In addition to eye testing our dogs, we need to work hard on funding the genetic research. Please be sure to participate in the first PRA raffle of a beautiful original watercolor. Raffle information is in this newsletter! All proceeds will go to the scientists at the University of Michigan.

In the meantime, let's take an extra moment each day to be thankful for how wonderful our Entlebuchers are! We would not change Shaman for all the Entlebuchers in the world. We love her: cataracts, PRA and all!

Kathy Marshall and Gina Thomas
Eagleheart Entlebuchers

Kathy Marshall has joined the PRA Committee.

If you have questions about PRA, eye testing, blood draw, please email her at:

katlin@entlebuchers.net and she will answer your questions in the next newsletter.

Special note from Kathy:

I have become the PRA Fundraiser, so for those of you who are inspired to Go for the Gold Against PRA, please send your donation to me at:

59484 W Kappler Rd
St Helens, OR 97051

Be sure to make the check payable to 'Michigan State University' and endorsed Entlebucher PRA Research. I will keep a log of the funds raised so we can Go for the Gold this year! I will give a report of our progress in each newsletter. In advance, thank you so much for your donation!

We need everyone's help to reach our goals!

PRA, YOU CAN HELP
By Jane Torma

This is an urgent plea from your PRA committee. We are in desperate need for all of you to please get your pet Entlebucher to your nearest board certified Ophthalmologist. To find the one nearest you, please go to our website www.nemda.org and click on the link under PRA under health problems.

We understand that these doctors are spread out and may not be convenient, but please, it is very important that we have as many dogs examined to find which of them actually have PRA at this time. Our research doctor, Dr. Simon Petersen-Jones, really needs as much blood from the PRA affected Entlebucher AND their closest relatives as possible at this time. The sooner he gets what he needs for his research, the sooner we will have our breed specific test, and the sooner this eye problem will be a thing of the past. Instructions on how to send blood is on the PRA page of the website. So please, get your pet to a board certified Ophthalmologist for an eye exam (and let them know that PRA is a problem in this breed). Please bring them the full translation of the PRA study that Dr Spiess wrote, this can be found on the PRA page as well. And if your dog has PRA, please contact one of the members of the PRA committee for instructions on what to do next. Or you can send blood to the scientist confidentially also. We are also here to listen and understand your shock and grief. Some of us on the committee are living with PRA blind dogs, and the rest of us are very involved in this important research and want to be here to help you through it.

Thank you so very much,
Jane Torma
PRA Committee Chair

WELCOME!

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