*Brainerd Nordic Ski Club*

# Lumberjack Jotter

January 2006

# Volunteers needed for Lumberjack Jaunt Feb. 5

The Lumberjack Jaunt is just around the corner. Come help one of the longest running ski races in Minnesota have another successful year!

While strongly encouraging people to ski the event, we are also in need of volunteers. If you don't feel like taking a run at:

1) a long ski with friends,

2) a new personal best,

3) an age division championship, or

4) a race victory, please consider lending a hand to help make the event a success.

The Jaunt will be held Sunday, February 5. Volunteers are needed from 10:00-2:00 on race day.

If you are interested, please email Josh at president@brainerdnordicskiclub.com.

## *2006 BNSC Board of Directors*

*Josh Duda, Chad Turcotte, Barb Flynn McColgan, Jean Meyer, Dan Cruser, Jeff DeVaney, Ray Griffin, Roger Landers, Pat Lanin, Derrek Matson, Bill Meyer, Jon Padgett, Mary Claire Ryan, Mark Stadem, Al Steiff, Nadine Wittkopp, Kent Montgomery.*

# Board of Directors meeting minutes -- Dec. 5, 2005

Boardwalk Bread and Bagel. Facilitator: Josh Duda. Members Present: Josh Duda, Chad Turcotte, Bill Meyer, Jean Meyer, Roger Landers, Pat Lanin, John Padgett, Dan Cruiser, Derrek Matson, Barb McColgan

Visiting Guests: Eric Storbakken, Mary Claire Ryan, Kent Montgomery, Junior Varsity Nordic Ski Team coaches from Brainerd Schools. Kent also works for the Nature Conservancy

The budget was reviewed. It was noted that $2500 that was paid out last year for repair work at French Rapids needed to come out of the damage grant that we have just received. The budget was accepted.

The visiting coaches noted that they have a shortage of equipment, so any donations of unused equipment would be welcome. Also, they asked if the club had any funding to buy 5 sets of poles, as they do not have enough taller poles. Bill made a motion to increase the budget to $400, with this request being accepted and allowed to use up to $300. The motion carried.

Discussion was held regarding trails and grooming. The visiting coaches expressed appreciation for the grooming at Forestview, and also the need for at least twice a week grooming there. Some stump removal is still needed there. The plan is that Forestview's trails will be grant-in-aid trails (swapped for the trails lost at French Rapids). Entry points will be off Mt Ash and Knollwood streets. Pat will be talking to Todd Selk at the high school regarding grooming fees, including the increased cost for the added trails at Forestview.

People walking dogs on the trails continue to be a problem. Groomers will continue to run the snowmobile on the dog trail to pack it and signage will encourage its use.

At the Arboretum there are two kiosks to deposit day fees for when the building is closed, but there is no way to record how many skiers are using the trails. Josh suggested a

Sign-in at the kiosks as well to help get a better record of how much skiers use the arboretum.

Attendance at the fall social was low (6-8 people). It was felt it should be set for the Sunday after Thanksgiving every year so that people consistently expect it to occur then and put it on their calendars.

The Lumberjack Jaunt is scheduled for Feb. 5 and they are looking for volunteers. Entry forms will be online soon.

There are new rates for Ski Passes this year: $40 for a three-year pass, $15 for a year pass, and $5 for a day pass. One or two spots in each region have been selected to push enforcement, and the Arboretum is one of these sights. It was suggested that ski club members wear their passes in a visible manner in order to increase awareness. It was also felt that it would be helpful if ski passes could be purchased at the Arboretum. It was noted that passes can be purchased online and the receipt shown.

Kent Montgomery from the Nature Conservancy noted that they are still taking bids for clearing at the Arboretum. The delay is because they have a particular method they want used which is different than what is typically used. Also, most loggers would prefer to do the work in January, and they are requesting it be pushed back until February, after the Lumberjack Jaunt. Kent noted that they will be onsite with the operator and will be able to provide daily updates. He will encourage them to try to keep some trees to help shade the trails.

There was discussion that it would be great to have Kent on the BNSC board as well. Bill made a motion and Chad seconded it that Kent Montgomery become a member of the board. The motion carried.

The next meeting will be January 2 at Boardwalk Bread and Bagel.

Meeting adjourned at 8:07 PM.

# Ski tips, waxes & things

*by Bill Meyer*

Back in November, I covered a lot of the different workouts and levels of intensity we use in ski training. Top of the list was BE or basic endurance, for which the body has a large capacity. About 75-80% of the hours of annual training. This is the meat and potatoes of ski training.

At an intensity of 20-40 beats below the lactate threshold (LT is where you start to feel pretty uncomfortable) – BE develops a strong heart and lungs, increases the capillaries in the muscles used and causes some cellular changes within the muscles used. Because of the last two benefits, it is very important to be training specifically—i.e. skiing or roller skiing for the majority of the effort.

Primarily from this type of training, the athletes will build up a "base". This is often coined as "endurance" which is a byproduct of the base—but for top level racers, it is not the primary goal. Along with the cellular changes and increased capillary, base should primarily be viewed as a way of increasing the capacity for higher level training and racing without getting overcooked or overtrained or overreached.

Skiing with good technique is the only way to be a really fast skier. You can't slop through an event and have top results.

At the other end of the scale was high intensity training or racing. Now racing in 5-15km races as high school does, or we do with Juniors in Biathlon and USSA is at a far higher intensity than a citizen racer doing a 30 or 50km race. The citizen racer really doesn't want to go anaerobic during his/her marathon event, while high level racers consider Race Pace (RP) to be 0-10beats **ABOVE** lactate threshold. For the whole event!

So let's look more closely at training and racing at high intensity. One of the most critical aspects is muscular control. Skiing with good technique is the only way to be a really fast skier. You can't slop through an event and have top results. There are too many good skiers out there. So you need to control your movements with good coordination and graceful, efficient moves. Yet when the lactates go above 4 mmoles, the skier will start to lose control. Plus as control is lost, the ability to relax between each stroke deteriorates, the tense muscles can't replenish and the whole process breaks down. In Biathlon, the biathlete needs to come in and shoot 2 or 4 times during the race—and the small muscles used to control the rifle are some of the first to be affected.

As you go anaerobic above the lactate threshold, a different energy pathway is being used… a not very efficient one which is producing the lactates. The rest of the body is using those lactates for fuel up to a certain capacity—and finally as the intensity level continues to increase—the heart will no longer increase its beats linearly, the lactate consumption will get out of balance and the lactates will then soar, and the muscle control becomes very poor—technique suffers, and the skier falls apart. Plus the skier feels sick to their stomach, the muscles are lax, and often a light headedness is apparent. All that is fine for the finish line sprint, but if it occurs during the middle of the event on a long climb—the body needs to clear that lactate before effective speed can again be achieved.

Base training sets the stage for helping the above—and many good skiers simply do BE for most of their training and depend on races to get "into shape". The better the BE base—the less time that takes. In addition, I have measured improvements in the RP speed early in the summer season when the only training being pursued was BE. That would imply there is some definite advantages from Base training that apply to RP level efforts without training at RP. **(continued on page 4)**

# Ski tips, waxes & things (continued)

**(from page 3)**

In addition to BE training during the year, we also use a measured amount of TH training [0-10 beats below the lactate threshold]. This has three beneficial effects—1] it allows skiing at a higher pace in training to learn to ski fast 2] it is good for increasing the stroke volume of the heart thus the VO2 and 3] for Biathletes it allows some shooting at a higher heartrate more approaching the level used in racing. In many ways, however, this measured effort [if less than 10% of the training with big recovery periods between workouts] is still a part of the base work.

To train for intense efforts like tough shorter, faster ski races or biathlons, we need to work on the factors affecting our performance in the RP area. Lactate tolerance, loss of coordination, fast twitch muscle conditioning and use, and general techniques for high speed skiing with tough uphills and challenging downhills. As mentioned, some successful racers simply do this by racing. And most will use that avenue to some degree. In addition, high speed sprints, hill climbing workouts, hill bounding in dryland, speed work, two person pursuits with matched skiers, and RP combos all are methods of training for RP skiing.

You will only race as fast as you have gone in training. But the single largest problem is the amount of recovery time it takes after a race or RP workout. With the high schools racing twice a week—and recover being 2-3 days to allow some supercompensation, and the top skiers doing biathlon or USSA races in addition to high school or other events – the younger skiers have little opportunity to do effective intensity training. The worst scenario is the coach who tries to have the athletes do some hard work [raise the lactates above 4 or 5 mmoles] every day. Where is the recovery and supercompensation? If the athlete overdoses on lactates, soon the heartrate will not elevate, the lactate threshold will occur at a lower speed, and the athlete will bury himself or herself trying to recapture the speed with a more anaerobic effort. Thus spiral downward quickly.

The RP work will train the fast twitch system [a source of much of the lactate] and with the need to cut down the volume of training to accommodate the races and training—the base building comes to a halt. When the fast twitch muscles get their dose of improvement—and that usually takes about 4-6 weeks, the athletes improvement for the year is over-—and he/she has “peaked”. Depending on the maturity and some other factors like percentage of fast twitch muscles of the athletes that peak might last two weeks or 6 weeks. Rarely in young athletes is it much longer. Then often the athlete will get sick and stay that way for several weeks and their season is effectively over.

Because it can be controlled, monitored better, and the principles of overload can be used, training at RP is more effective than racing at RP as an improvement method.

So what should our priorities be so that we don’t waste our valuable intensity allotment which is so tied to our base from the years training? First—build a huge base. That means starting in May. Not November.

Here are some priorities—in descending order:

1] A reasonable number of races per year—that is why the athletes are training and doing all this—but don’t overdo it. These might be running or biking – but the first priority should be biathlon events, or biathlon and USSA ski events in the fall/winter.

2] Biathlon time trials or short intervals at intense heartrates to teach performance at controlled high heartrates and lactates.

**(continued on page 5)**

# *Ski tips, waxes & things (continued)*

**(from page 4)**

3] TH or RP blocks/intervals on roller skis or skis. These can be hill repeats, flat blocks, a mix of hills and flats or even double pole blocks. They need to be specific to skiing, particularly the upper body use, by using the exact muscles you use in skiing so you learn to ski faster, your ski skills improve, and your ski muscles learn to call up the heartrate and use the excess lactate.

4] Plyos and hill bounding in the fall and early winter. These are relatively similar. Both require a movement that is ski related, uses high levels of power and fast twitch muscles and is thus an overload of ski movements.

Low on the priority list are:

5] Unreasonable races. Jumping into a race with no goal. No matter what the type of race there should be a goal. Doing junk races with little competition or that are way below your ability. You need to race against fields that are better than you to improve your ability to race effectively. Look for new competitors.

6] Other out of season intense training things that aren't focused on the above top 4. The time for building strength is in May and June. The time for running or bike racing is summer at best.

One last thought. Most young athletes are far too concerned about their results or who is beating whom. In the early development years athletes need to learn to train properly and to pace themselves with their lifestyles. Then comes learning to compete—race strategies and etc. – and then in their top Junior years [19&20] and young Senior years—they need to learn to train and ski for results. Not before that.

Enjoy

---

# On the Web!

*News, trail information, grooming reports, weather updates*

**www.brainerdnordicskiclub.com**