## Solving common problems on Swedish lakes

Nordic Skating Academy

## Contents

1. Sweden is not Holland
2. With all those unknown issues, how to start?
3. Solution: skating patterns

## Shallow versus big variation in depth



Holland: average depth 1 to 5 meter.
Depth of >8 meter unusual.
The few deep lakes don't freeze.


Sweden: big depth variance between lakes and within lakes.
Depths between 30 and 60 meter are common.
Many lakes have section(s) deeper than 60 meter.
Lakes freeze in generations.

## Every lake is part of streaming water

Holland is flat like a pancake. Sweden is not. Every lake is on a different altitude and part of a downstream.

This results in flowing water with noticeable speed in every lake.

The water flow remains in place under the ice in winter.


## Shrinking and expanding ice

Rule of thumb: ice shrinks/expands 1 meter per kilometer ice per $10^{\circ}$ difference in ice temperature.
That means that every day, there is a lot of friction in the ice. Seldom seen in Holland.

## Ice is there for 3 to 4 months

In our Swedish target area, the ice comes in December and ends in March. That means a lot of things (when you weren't there) happened to the ice.


## Unlimited variation in shapes and islands



Swedish lakes have lots of islands.

Every island delivers turbulence in the water and friction in the ice.

The map and the satellite picture are of the same area. White = snow on ice.

Can you spot the open water areas between the islands?

## No people, no track

We all know how it works in Holland. Once somebody (or a local club) explored a route, everybody keeps that same lane.

That system doesn't exist in Sweden. You will be skating lakes where nobody or few people were before.


# "Dutch experience does more harm than good when you go skating in Scandinavia" 

Veluwemeer in same scale

## I



## With all dynamics, how to start?

It is impossible to teach all phenomena and combinations to starters.
But, it is possible to start skating safely and learn yourself.

- First: be aware that using Dutch habits is risky
- Second: choose the basic skating pattern to reduce risk
- Third: start observing and study the things you see
- Fourth: from there, slowly add small variations on the basic pattern


## The basic skating pattern

- Goto www.hlsk.nl
- Choose IJsvossen
- Scroll down
- On the left, you see Skating Patterns
- Choose "De basis: waarom langs de kant?"


## Inflow and outflow

Inflow
Streaming water coming in a lake from the side, delivered by a river, stream, creek, waterfall.
Skating pattern: Instroom (inlopp, inflöde)

Outflow
Streaming water leaving the lake to the next lake or to the sea.
Skating pattern: Uitstroom (utlopp, utflöde)

## Udde and sund

Udde
Tip of land reaching into the lake.
Skating pattern: Udde (landpunt)

Sund
Narrow part in the lake or between islands.

## Skating pattern: Sund (vernauwing)

## Other risk reducing measures



- Keep distance while skating
- Adjust speed to your experience level
- Smaller lakes have less risk
- Avoid unnecessary crossings
- Think twice before you leave the side
- Rethink your plan during breaks
- Discuss situation after a change


## "Keep it simple"

## "Any doubt, out"

Rob

## Questions?

Ask them now or mail rob@fire.ly

