

Read me file: Hordaland striations database

Cite database as: Sæle, T.H. 2017. Skuringsstriper og isbevegelse for Hordaland. MSc thesis. Department of Earth Science, University of Bergen, 110 pp.

Column 1: *Striae number*. Database number of the striation.

Column 2: *Location/site number*. Note there can be several striations on one location.

Column 3: *County*. This database is only referring to Hordaland. However, it could be useful if you use striations from different counties.

Column 4: *Place*. Name of the location/site to quickly identify the locality on the map.

Column 5: *Coordinates*. Two columns that state longitude (E) and latitude (N). Longitude is given with a precision of maximum 4 decimals. Latitude is given with 5 decimals. For striations recorded during new fieldwork, GPS coordinates are given. Locations from other authors are taken from "norgeskart.no" (Kartverket), after identification of the localities. Coordinates used; EU89-geografiske grader.

Column 6: *Precision*. Precision for the geographical stating, rated from 1-4 based on how precise the coordinates are considered to be. How the scale is defined:

1. Very precise. Only used for coordinates taken from GPS.
2. Precise. The locality is given on a map where it is easy to recognize a point in the topography, like an island. We consider the margin of error to be <50 m.
3. Less precise. Used if the original map has a scale 1:50 000 or 1:100 000. Consider the margin of error to be <500 m.
4. Not precise. The locality is given on small maps in publications. The margin of error may be several km. These are only used if the orientation is significant for the glaciological interpretation.

Column 7: *Altitude*, m a.s.l. Height for own field observations are from maps combined with GPS. Altitude from other authors is from "norgeskart.no", if the height is not referred to in a table.

Column 8: *Midpoint*. For some of the striations a sector is recorded. This column is used if the sector is <10°. If the sector is from 0°-10°, then 5° is the value.

Column 9: \pm . If the sector is >10° this column is used. An example: the striations are from 0°-30°, then 15 is the midpoint to be put in column 8, and the \pm value is 15.

Column 10: *Youngest*. The orientations of the youngest striae is given in this column (Figure 1). If there is only one direction mentioned in the table, this number is also given here.

Column 11: *Older*. This column is used to record the orientation of the next oldest striations striations.

Column 12: *Even older*. Even older striations is given here.

Column 13: *Oldest*. The oldest striations are given in this column.

Column 14: *Undetermined relative age*. This column is used for striations with an undetermined relative age. There may be two striations at one location that are indeterminable. Even at some locations, there may be one striae that is the youngest and one that are undetermined.

Column 15: *Quality*. Quality of the striations is defined in a scale of 1-3:

1. Polished surface. Newly revealed surface that appears totally polished and the smallest striations are preserved. It may also exist between high and low water.
2. A surface that is almost unweathered. Such surfaces may also contain finer striations.
3. Weathered surface. The orientation is clear, but the finer striations may be lost.

Column 16: *References*. The reference for the striations.

Column 17: *Code symbol*. This column is useful for the mapping program (ArcMap). The codes are used to identify the correct symbology for the striations on the map. The codes are the same used by the Norwegian Geological Survey "Norges geologiske undersøkelse" (NGU) (Figure 1).

Column 18: *All orientations*. All the striations are assembled in this column independent of relative age or sector. This is also used with respect for ArcMap.

Column 19: *Comments*. This column is used when there are some relevant comments. For example, if the location of the striae is leeward.

Column 20: *Erosional marks*. Erosional marks like chatter marks or crescentic fractures are used to support the direction of ice movement.

- † 212, Isskuringsstripe, to mulige isbevegelsesretninger
- ‡ 213, Isskuringsstripe, relativ alder ikke fastlagt
- ↙ 214, Isskuringsstriper innenfor sektoren
- ↑ 215, Kryssende isskuringsstriper, (relativ alder 1)
- └ 216, Kryssende isskuringsstriper, (relativ alder 2)
- └ 217, Kryssende isskuringsstriper, (relativ alder 3)
- └ 218, Kryssende isskuringsstriper, (relativ alder 4)
- ↘ 260, Isskuringsstriper innenfor sektoren, kryssende, rel. alder 1 (2)

Figure 1: The legend used to describe the symbology used for relative age. The codes used for ArcMap to have the correct orientation of the striations on the map. 212: striation with two possible ice flow directions. 213: striations where the relative age is not determined. 214: striations within a sector. 215-218: striations with a relative age difference, 215 is the youngest. 260: striations within a sector, crossing, relative age 1 (2).

References

Kartverket. www.norgeskart.no. [2016].