

# Paleoseismicity of Sweden

## a novel paradigm

**Nils-Axel Mörner**

Paleogeophysics & Geodynamics, Stockholm University, Stockholm, Sweden

*At the time of deglaciation,  
Sweden,  
like the rest of Fennoscandia,  
was an area of high to super-high seismic activity.*

*This novel paradigm  
is here presented in a series of fifteen papers.*

**This book is a contribution  
to the INQUA XVI Congress in Reno, Nevada, in 2003  
by the Editor and Authors  
and the Sub-Commission on Paleoseismology  
of the INQUA Commission on Neotectonics**

previously from the author (besides numerous research papers):

**Earth Rheology, Isostasy and Eustasy**

Editor: Nils-Axel Mörner  
John Wiley & Sons, 1980

**Climatic Changes on a Yearly to Millennial Basis**

Editors: N.-A. Mörner & W. Karlén  
Reidel, 1984

**Bulletin of the INQUA Neotectonics Commission, Nos. 1–19**

Editor: Nils-Axel Mörner  
INQUA, 1978–1996

**Printed in 2003**

by  
JOFO Grafiska AB  
for  
Nils-Axel Mörner  
Paleogeophysics & Geodynamics

**ISBN–91–631-4072-1**

**© Nils-Axel Mörner**

Produced and distributed  
by  
Nils-Axel Mörner  
Paleogeophysics & Geodynamics, Stockholm University, S-10691 Stockholm, Sweden  
[www.pog.su.se](http://www.pog.su.se), Tel. 46-8-164671, Fax. 46–8-164675, E-mail: morner @ pog.su.se

## **CONTENTS**

<b>Paper</b>	<b>Title</b>	<b>Page</b>
1	<b>Paleoseismicity of Sweden. A novel paradigm</b>	5
2	<b>The Fennoscandian uplift; mode, amount and rates</b>	9
3	<b>Ground shaking and paleoseismic marker-beds</b>	19
4	<b>The Umeå region: the Röbbäck structures and events</b>	21
5	<b>The Hudiksvall region: the Boda Cave and its surroundings</b>	29
6	<b>The North Uppland region: Gillberga Gryt and Mehedeby</b>	225
7	<b>The Mälardalen region: the autumn 10,430 BP event</b>	229
8	<b>Southeast Sweden</b>	265
9	<b>The Kattegatt – West Coast area</b>	269
10	<b>The “spotted zone” in the new light of paleoseismics and methane venting</b>	289
11	<b>The new Active Tectonics map of Fennoscandia</b>	295
12	<b>Paleoseismic Catalogue of Sweden, 2003</b>	301
13	<b>Causal correlation between rate of uplift and paleoseismicity</b>	309
14	<b>Paleoseismics and General Quaternary Geology of Sweden New aspects in the light of the novel concept of a high deglacial seismicity</b>	313
15	<b>General Conclusions</b>	319

The 15 papers included are not numbered but marked by their main heading in red.