

ORDOVICIAN NEWS

SUBCOMMISSION ON ORDOVICIAN STRATIGRAPHY
INTERNATIONAL COMMISSION ON STRATIGRAPHY



ABSOLUTE AGES (Ma)	SYSTEM	GLOBAL SERIES	GLOBAL STAGES	KEY GRAPTOLITE/ CONODONT(C) BIOHORIZONS	BRITISH SERIES	
443.7	ORDOVICIAN		HIRNANTIAN	← <i>A. ascensus</i> (GSSP-Dob's Linn)	ASHGILL	
445.6				← <i>N. extraordinarius</i> (GSSP-Wangjiawan North)		
			KATIAN			
455.8			UPPER	SANDBIAN	← <i>D. caudatus</i> (GSSP-Black Knob Ridge)	CARADOC
460.9					← <i>N. gracilis</i> (GSSP-Fagelsang)	LLANVIRN
			MIDDLE	DARRIWILIAN		
468.1					← <i>U. austrodentatus</i> (GSSP-Huangnitang)	ARENIG
471.8			DAPINGIAN	← <i>B. triangularis(c)</i> (GSSP-Huanghuachang)		
			LOWER	FLOIAN		
478.6					← <i>T. approximatus</i> (GSSP-Diabasbrottet)	TREMADOC
488.3	TREMADOCIAN	← <i>I. fluctivagus (c)</i> (GSSP-Green Point)				

N° 25

2008

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URL:

<http://www.ordovician.cn>

<http://seis.natsci.csulb.edu/ISOS>

Cover:

The Global Ordovician Time Scale (completed in 2007 by ISOS, ICS, IUGS).

NOTE FOR CONTRIBUTORS

The continued health and survival of *Ordovician News* depends on YOU to send in items of Ordovician interest such as lists and reviews of recent publications, brief summaries of current research, notices of relevant local, national and international meetings, etc. As more geological software becomes available, details of this would also be welcomed by many of us. Also please ensure the SOS's Secretary (responsible editor) is notified of any changes in address, telephone or fax number and e-mail address.

EDITOR'S NOTE

Welcome to the new issue of *Ordovician News* in soft version, the tenth and last one since I am serving as editor. Current number (25, 2008) is saved as a .pdf document for easier downloading and opening of the file. Current number is not mailed as hard copy, with the hope all friends of the Ordovician are able to get into the network. Our previous electronic distributions were very successful, particularly by dramatically diminishing costs of printing and postage, as well as by allowing us to have the newsletter in the personal computer for permanent and easy access. In case members of the Ordovician community have any comment on this issue, the secretary would be pleased to hear from them. I would like to thank all of you for the many contributions for the current number.

The cover of current number presents the accomplished objective of our subcommission as foreseen for the last two terms; that is, the global Ordovician time table, with established stratotypes for intra and intersystemic boundaries, and names for the global Ordovician subdivisions, as concluded with last formal ratifications at the end of 2007. Several important international meetings and field trips, particularly related to Ordovician stratigraphy and paleontology, are included. Also you will find information on several new international projects, scientific reports and honorary notes. Finally, as always, your personal contributions on current research, publications, and updated addresses, are herein published. Our subcommission will renovate part of its titular members and officers at the International Geological Congress to be held in Oslo, Norway, next August. Likewise, at this meeting I will pass the secretariat to Ian Percival from Australia, who has been formally elected and ratified as secretary by the ISOS-ICS-IUGS. After ten years with the responsibility of the secretariat, it is with great pleasure that I give the post to Ian, with the hope that he will continue with this special assistance to all of us indeed.

I am particularly grateful for the technical support provided by Fan Juanxuan (Nanjing Institute of Geology and Palaeontology, China), who uploaded current issue of *Ordovician News* in its web site: www.ordovician.cn

I appreciate very much your confidence in my service to the secretariat of the Subcommission during the past two terms, since 1999 up to date (May 30, 2008). Thank you.

GUILLERMO L. ALBANESI

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CHAIRMAN'S REPORT

The Subcommittee has successfully completed its voting procedure for the new leadership and the new voting members. They are listed in the present newsletter by the current secretary of the Subcommittee. Thus, the new officers of the Subcommittee will run the Subcommittee business from the upcoming Oslo IGC, and our new chairman, David Harper, will hold the Subcommittee meeting in Oslo.

The Subcommittee is proud for completing the GSSP work in the past two decades from 1991 to 2007. As I reported in the Yangtze Conference, Stig Bergström, Chen Xu, Juan Carlos Gutiérrez-Marco, and Andrei Dronov will have completed a report on new chronostratigraphic classification of the Ordovician System. A manuscript of a new chronostratigraphic classification of the Ordovician System, its relations to major regional series and stages and to $\delta^{13}\text{C}$ chemostratigraphy was submitted to Lethaia in the Spring of 2008. We expect it will be published soon.

During the past four years, the Subcommittee website worked very well. I am sure that the new Subcommittee officers will continuously manage the Subcommittee website.

I was very pleased and honored to be the Chairman of the Subcommittee in the past four years. I would like to thank all voting and corresponding members of the Subcommittee for supporting me during my term. As current corresponding member of the Subcommittee I will continuously provide my contribution to the Subcommittee.

CHEN XU

SOS ANNUAL REPORT FOR 2007

1. Name of constituent body:

Subcommission on Ordovician Stratigraphy (SOS)
Submitted by:

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2. Overall objectives, and Fit within IUGS science policy:

The Subcommittee promotes international cooperation on Ordovician Stratigraphy. Specific objectives are:

- a. To delimit and subdivide the Ordovician System (and Period) as a part of the overall ICS mission to elaborate the standard global stratigraphic scale. This work aims to establish the boundaries (GSSPs), the correlation of the subdivisions (Stages and Series), and the nomenclature of the subdivisions.
- b. To promote regular international meetings on aspects of Ordovician geology, especially those devoted to clarifying stratigraphic procedures, nomenclature and methods for use in establishing a unified global time scale, and to prepare correlation charts with explanatory notes (this latter task is now completed).
- c. To encourage, promote, and support research on all aspects of Ordovician geology worldwide and to provide publication outlets, *Ordovician News*, international meetings, and a web page, for promoting discussions and reporting results of this research.
- d. To encourage, promote, and support interdisciplinary research on the Ordovician global Earth system, addressing topics that require high-

resolution, global correlation. The ultimate goal of the Subcommittee is to provide a high-resolution geological time scale that will be a critical foundation for interdisciplinary research on the global Earth system during the Ordovician Period. The work is broad based and must include specialists in paleontology, all subdisciplines of stratigraphy (bio-, litho-, chemo-, and magneto-), sedimentology, geochemistry, and tectonics. With active participants from more than 25 countries, the Subcommittee involves much of the global geological community.

3. Summary table of Ordovician subdivisions

SYSTEM	GLOBAL SERIES	GLOBAL STAGES	KEY GRAPTOLITE/ CONODONT(C) BIOHORIZONS
ORDOVICIAN	UPPER	HIRNANTIAN	← <i>P. acuminatus</i> (GSSP-Dob's Linn)
		KATIAN	← <i>N. extraordinarius</i> (GSSP-Wangjiawan North)
		SANDBIAN	← <i>D. caudatus</i> (GSSP-Black Knob Ridge)
	MIDDLE	DARRIWILIAN	← <i>N. gracilis</i> (GSSP-Fågelång)
		DAPINGIAN	← <i>U. austrodentatus</i> (GSSP-Huangnitang)
		FLOIAN	← <i>B. triangularis</i> (C), (GSSP-Huanghuachang)
	LOWER	TREMADOCIAN	← <i>T. approximatus</i> (GSSP-Diabasbrottet)
			← <i>I. fluctivagus</i> (C) (GSSP-Green Point)

4. Organization

a. Subcommittee Executive
 Chairman, Chen Xu (P.R.China)
 Vice Chairman Juan Carlos Gutiérrez-Marco (Spain)
 Secretary, Guillermo L. Albanesi (Argentina)
 16 other Voting Members
 Over 100 Corresponding Members
 Subcommittee website: www.ordovician.cn
<http://seis.natsci.csulb.edu/ISOS> (remains active for facilitating discussion of GSSP proposals).
 The Subcommittee officers and voting members will be re-organized for the next term from 2008-2011. The Subcommittee had a business meeting during the Nanjing conference including a discussion about the replacement of retiring Subcommittee officers, followed by nominations of potential new voting members to replace those whose terms have expired.

(a) The scrutiny of votes to elect the new officers for the International Subcommittee on Ordovician Stratigraphy.

a: Chair, D.A.T. Harper, received 100% (17 of 17) of votes.

b: Vice-Chair, J.M. Gutiérrez-Marco, received 100% (18 of 18) of votes.

c: Secretary, I.G. Percival, received 100% (18 of 18) of votes.

Abstentions and non responses (blank votes) are not counted in calculating the majority votes, following ICS guidelines.

- Aceñolaza: a: yes, b: yes, c: yes
- Albanesi: a: yes, b: yes, c: yes
- Chen Xu: a: yes, b: yes, c: yes
- Dronov: a: yes, b: yes, c: yes
- Fatka: a: yes, b: yes, c: yes
- Finney: a: yes, b: yes, c: yes
- Fortey: a: blank, b: blank, c: blank
- Gutiérrez-Marco: a: yes, b: yes, c: yes
- Harper: a: abstention, b: yes, c: yes
- Huff: a: yes, b: yes, c: yes
- Li Jun: a: yes, b: yes, c: yes
- Mitchell: a: yes, b: yes, c: yes
- Nicoll: a: yes, b: yes, c: yes
- Nowlan: a: yes, b: yes, c: yes
- Owen: a: yes, b: yes, c: yes
- Paris: a: yes, b: yes, c: yes
- Percival: a: yes, b: yes, c: yes
- Popov: a: yes, b: yes, c: yes
- Saltzman: a: yes, b: yes, c: yes

(b) Titular members to be replaced:

- Chairman: Chen Xu (China)
- Secretary: Guillermo Albanesi (Argentina)
- Richard Fortey (UK)
- Florentin Paris (France)
- Stanley Finney (USA)
- Warren Huff (USA)
- Robert Nicoll (Australia)

Juan Carlos Gutiérrez-Marco (Spain) will remain as Vice-Chair, and Guillermo Albanesi (Argentina) will remain as titular member, both for the new period 2008-2011. Thus, the Subcommittee needs six new voting members to replace the six retired senior voting members. The vote was carried out very recently with an acceptable outcome. There were six candidates who obtained more than half of the positive votes from the Subcommittee voting members. They are:
 O. Hints (Estonia),
 S. Leslie (USA),
 A. T. Nielsen (Denmark),

T. Servais (France),
 T. Vandenbroucke (Belgium),
 Zhang Yuandong (China).
 They will replace the retiring Titular members from
 2008 after the Oslo IGC.

5. Interfaces with other international projects

IGCP Project 503: Arguably the most sustained rise in marine biodiversity took place during the Ordovician, and the second largest mass extinction event took place close to the end of that Period, coincident with an episode of major climate fluctuation. The results of the very successful IGCP project n° 410 "The Great Ordovician Biodiversification Event" not only included the development of an improved globally-integrated biozonation for graptolites, conodonts and chitinozoans, but also generated biodiversity curves that have been constructed for all Ordovician fossil groups.

Following the work of the numerous regional teams and of the clade teams, that were established for each fossil group in IGCP project n° 410, a new successor project was proposed in order to develop a better understanding of the environmental changes that influenced the biodiversity trends in the Ordovician and Early Silurian. In this project (IGCP 503), the major objective is thus to attempt to find the possible physical and/or chemical causes (e.g., related to changes in climate, sea level, volcanism, plate movements, extraterrestrial influences, etc.) of the Ordovician biodiversification, the end-Ordovician extinction, and the Silurian radiation.

6. Chief accomplishments and products in 2007

a. The Yangtze Conference in Nanjing, China, 27-30 June, 2007

About 140 scientists (of whom nearly 100 came from 23 countries to visit China) recently held an international conference in Nanjing to discuss the latest progress in research into Ordovician and Silurian Systems. "The Global Ordovician and Silurian", combined the 10th International Symposium on the Ordovician System, the 3rd International Symposium on the Silurian System and the 4th Annual Meeting of the IGCP 503 project on "Ordovician Palaeogeography and Palaeoclimate". These combined meetings, convened by CHEN Xu (Nanjing, China), RONG Jiayu (Nanjing, China) and Thomas SERVAIS (Lille, France), were sponsored by the Chinese Academy of Science, the National Natural Science Foundation of China and the Jiangsu Association for Science and Technology, and were hosted by Nanjing Institute of Geology and Palaeontology and State Key Laboratory of Palaeobiology and Stratigraphy, NIGPAS.

During the three days of the indoor meeting, 66 talks and about 20 posters were presented, focusing on various fields such as palaeontology, stratigraphy, palaeo-biogeography and palaeo-geography, geo- and bio-events, palaeo-oceanography, community palaeoecology, geochemistry, sedimentology, climatology, and tectonic settings. With so many specialists gathered, the conference also provided an ideal opportunity to hold workshops discussing research on graptolites, trilobites, acritarchs and chitinozoans; business and information meetings were also convened of the International Subcommittee on the Ordovician System, International Subcommittee on the Silurian System, and IGCP Project 503.

Field excursions to examine relevant exposures in the host country are an integral part of international Ordovician and Silurian symposia, and this meeting was no exception. A pre-conference field trip from June 22-26, organized to Zhejiang and Jiangxi Provinces in southeast China by ZHANG Yuandong, WANG Haifeng and others, was attended by about 30 registrants. This field trip concentrated on Ordovician to Early Silurian sections of slope facies. One of the significant localities visited was the GSSP of the Darrwilian Stage (upper Middle Ordovician) at Huangnitan in the Changshan National Geopark.

A half-day mid-conference field excursion to Ordovician and Silurian outcrops in the Nanjing Hills, east of the host city, was led by YUAN Wenwei and FAN Junxuan; the afternoon was devoted to a taste of the history of Nanjing, with visits to the city Museum and the Zhonghuamen Castle on the ancient city wall.

Seventy registrants participated in the post-conference field trip, led by ZHAN Renbin and JIN Jisuo to the Ordovician-Early Silurian rocks of the Yangtze Platform, exploring outcrops near Tongzi County Town in Guizhou Province, a traverse through the Yangtze River Gorges between Wanxian and Yichang, and finally examination of some stratigraphically significant sections in the vicinity of Yichang (Hubei Province). One highlight was the unveiling of a monument to the newly defined GSSP for the base of the Middle Ordovician at Huanghuachang village. This ceremony was attended by the Ministry of Land and Resources representatives, Yichang city government officials, and members of the International Commission on Stratigraphy including Secretary Prof. Jim OGG and Vice-chairman Prof. Stan FINNEY. Yichang city is richly endowed with geological stratotypes – the area also contains the GSSP for the base of the latest Ordovician Hirnantian Stage near Wanjiawan village.

Three publications provide a permanent record of the symposia and their associated field excursions. A special issue of *Acta Palaeontologica Sinica* Volume 46 ("The Global Ordovician and Silurian" of 566 pages; edited by LI, FAN & PERCIVAL) contains 88 short papers that were presented at the conference. Two excellent and copiously illustrated

field guidebooks were produced for the pre-and post-conference excursions. These and the conference Proceedings volume are available from the Nanjing Institute of Geology and Palaeontology.

The next International Symposium on the Ordovician System will take place in Spain in May, 2011. IGCP 503 concludes its 5-year program with an International Congress on Palaeozoic Climates in Lille, France during August, 2008.

b. The Subcommission completed the GSSP research and all 7 Stage GSSPs have been established and approved by the IUGS before the Ordovician Yangtze Conference. Bergström, Chen Xu, Gutiérrez-Marco, and Dronov will edit a new chronostratigraphic classification of the Ordovician System and its relations to major regional series and stages. The English version will be published in *Lethaia* and the Chinese version will be published in the *Journal of Stratigraphy* in China next year before the Oslo IGC. A colour reprint of the Global Ordovician Chronostratigraphy chart will be distributed to colleagues in different countries.

c. *Ordovician News No. 24* was produced and posted on the Subcommission webpage.

7. Chief problems encountered in 2007

The Subcommission is planning to publish an Ordovician time table because all of the GSSPs are approved and ratified. It was discussed at the Yangtze conference during June in Nanjing. The Subcommission may face a financial support problem to publish this table although we have received some support from Chen Xu's research project.

As always, the lack of travel support may limit the participation of Voting Members at the IGC in 2008 in Oslo.

8. Summary of expenditures in 2007

Support to the production of newsletter (Albanesi) 500USD

(in past years, the Subcommission provided support of 500USD every year to Albanesi as the secretary of the Subcommission).

Support members to participate in the Yangtze conference in Nanjing. 900 USD

(including 500USD of this year and 400 USD deposited from last year).

Postage 50USD

TOTAL 1450USD

9. Work plan, critical milestones, anticipated results and communications to be achieved next year

a. Will publish the Ordovician Chronostratigraphy chart in *Lethaia* and the Chinese version in *Journal of Stratigraphy* in China before the Oslo IGC.

b. Production and internet distribution of *Ordovician News No. 25* in 2008.

c. Management of Subcommission website (which should be undertaken by another Webmaster appointed by the new Chairman of the Subcommission).

10. Budget and ICS component for 2008 (agreed with the new Chairman)

Ordovician News No. 25 production: 500USD

Travel subsidies for executive members to attend the 10th Ordovician conference in China and the GSSP dedication ceremonies: 1000USD THIS IS LAST YEARS ITEM

Support to the preparing work of the organization committee for the 2007 Ordovician conference: 300USD THIS IS LAST YEAR'S ITEM

Management of Subcommission website: 300USD

Preparation of an Ordovician Time Table: 300USD

TOTAL 2008 BUDGET REQUEST: 2400USD

Potential funding sources outside IUGS

The IGCP Project 503, "Ordovician Palaeogeography and Palaeoclimate", co-funded the four meetings (with related field trips) in 2007 in China with the 10th Ordovician conference. This project will provide travel support to a significant number of Ordovician specialists, including voting members of the Subcommission, allowing for regular meetings at the annual workshops scheduled for the project.

The State Key Laboratory of Stratigraphy and Palaeobiology, Nanjing Institute of Geology and Palaeontology, Chinese of Academy of Sciences, provide a server for the Subcommission website.

The Subcommission officers are also supported by their research projects for part of their activities.

11. Review chief accomplishments over last five years (2000-2006)

a. Approval, ratification, and dedication of the Green Point GSSP for the base of the Ordovician System.

b. Approval, ratification, and dedication of the Diabasbrottet and Fågelsång GSSPs for the bases of the upper stage of the Lower Ordovician Series and the Upper Ordovician Series, respectively.

c. Approval, ratification, and dedication of the Black Knob Ridge section, Oklahoma, USA and the Wangjiawan North, Yichang, China GSSPs for the bases of the Katian and Hirnantian stages, respectively.

d. Approval, ratification, and dedication of the Huanghuachang section, Yoichang, China for the

base of the Dapingian Stage, which coincides with the base of the Middle Ordovician.

e. With publication in 2000 of *A Revised Correlation of Ordovician Rocks in the British Isles*, correlation charts have been completed for Ordovician rocks on all continents.

f. The 9th International Symposium on the Ordovician System held in San Juan, Argentina, in August 2003, in conjunction with the 7th International Graptolite Conference and a Field Meeting of the Subcommittee on Silurian Stratigraphy and publication of 556 page proceedings, 130 participants represented 18 countries, 124 papers were presented in technical sessions.

g. Publication of *Ordovician News* nos. 17-23 and their posting on the Subcommittee's web site.

h. Development of the web site "Ordovician Stratigraphy Discussion Group" to facilitate discussions on selection of the GSSPs. This site has evolved into the Subcommittee's web site and also includes postings of *Ordovician News*.

i. Sponsorship of a technical session and field excursion on the GSSP for the base of the Middle Ordovician Series at the Annual Meeting of the Geological Society of America in November 2000.

j. Sponsorship at the 31st International Geological Congress, Rio de Janeiro, Brazil, 2000, of the symposium "Paleontological, stratigraphical, and paleogeographical relations among South America, Laurentia, Avalonia, and Baltica during the Ordovician."

k. Sponsorship at the 32nd International Geological congress, Florence, Italy, 2004, of the symposium "The global Ordovician Earth system".

l. Launched GOES (Global Ordovician Earth System) Program to stimulate integrated multi-disciplinary studies of global events (mass extinction, sea-level changes, greenhouse conditions, tectonics) during the Ordovician Period.

m. Sponsorship of a special symposium on the Ordovician System at the Geological Society of America Annual Meeting in 2000, of WOGOGOB 2001 in Copenhagen, and the meeting and field excursion "The Gondwanan Platform in Ordovician times: Climatic, eustatic and geodynamic evolution", in Morocco in February 2001.

o. Selection of names for 2nd, 3rd, 5th, 6th and 7th stages of the Ordovician System.

p. Sponsorship of the 2006 IGCP 503 Glasgow meeting on "Changing palaeogeographical and palaeobiogeographical patterns in the Ordovician and Silurian".

q. Sponsorship of the 2007 Yangtze Conference (the 10th Ordovician Conference) which is combined with the 3rd Silurian Conference and the IGCP503 annual meeting in Nanjing.

INTERNATIONAL SYMPOSIA, CONFERENCES AND FIELD MEETINGS

7TH BALTIC STRATIGRAPHICAL CONFERENCE

15-22 May 2008 (including excursions), Tallinn, Estonia

The 7th Baltic Stratigraphic Conference will take place on May 17-18, 2008 in Tallinn, jointly organized by the Institute of Geology at Tallinn University of Technology and the Department of Geology, University of Tartu. The meeting will be preceded and followed by geological excursions including Ordovician excursion to eastern Estonia on May 19, 2008, a bentonite excursion and workshop on May 15-16, 2008 and Silurian excursion on May 20-22.

All contributions related to geology and stratigraphy of the Baltic region are most welcome. Depending on the interest and number of papers, different sessions will be organized. The topics of primary interest include, but are not limited to:

- * Regional stratigraphical schemes, correlation and stratotypes.
 - * Regional aspects of the international timescale
 - * Biostratigraphy and paleontology
 - * Biodiversification
 - * Sequence stratigraphy
 - * Quantitative stratigraphy
 - * Quaternary geology
 - * Ordovician paleogeography and paleoclimate (IGCP 503 session)
 - * Volcanic ash layers and their utility for stratigraphy, facies analyses and diagenetic history research.
- More information is available on the conference website at <http://www.gi.ee/7bsc>
After the conference, all presentations, abstracts and excursion guidebooks will be deposited there.

OLLE HINTS

PALAEOZOIC CLIMATES

International Congress
August 23-31, 2008, Lille, France

May 1st 2008: Deadline for abstracts, registration and payment of regular fee. June 20st 2008 : Third circular, travel information, distribution of the scientific programme.

August 23-24 Pre-conference excursion (Excursion A): Lower Palaeozoic of Belgium and northern France (Brabant, Condroz)

August 25-26: Early Palaeozoic Climates, Sea-Levels and Biodiversity (including Closing Session IGCP 503). August 27: Plenary Session: Palaeozoic Climates and Biodiversity August 28-29: Late Palaeozoic Climates, Sea-Levels and Biodiversity

August 30-31: Post-conference excursion (Excursion B) : Upper Palaeozoic of Belgium and northern France (Avesnois, Meuse Valley, Ardenne)

Organizers

Alain Blieck (USTL, CNRS, Lille)
Benoît Hubert (UCL, Lille)
Bruno Mistiaen (UCL, Lille)
Nicolas Tribouvillard (USTL, Lille)
Marco Vecoli (USTL, CNRS, Lille)
Jacques Verniers (Univ. Gent, Belgium)
Björn Kröger (USTL, Lille), secretary
Thomas Servais (USTL, CNRS, Lille), chair
Scientific committee
Michael Bassett, Cardiff
(The Palaeontological Association)
Taniel Danelian, Paris
(Association Paléontologique Française, APF)
David T. Harper, Copenhagen
(Subcommission Ordovician Stratigraphy)
Alain-Yves Huc, Paris
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Centre National de la Recherche Scientifique
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The Palaeontological Association
Association Paléontologique Française
Société Géologique de France
Société Géologique du Nord

Keynote speakers

The following speakers accepted to present a keynote talk. Other keynote speakers will be added to this list.

- Robin Cocks (The Natural History Museum, London): Lower Palaeozoic palaeogeography.
- Yves Goddérès (Univ. Toulouse, France): Global biogeochemical cycles.
- Michael Joachimski (Univ. Erlangen, Germany): Upper Palaeozoic carbon and oxygen isotopes.
- Arnold I. Miller (Univ. Cincinnati, Ohio, USA): Palaeoenvironmental impact on diversity over time.

- Christian Klug (Univ. Zürich, Switzerland): Evolution of the marine food web in the Devonian.
- Alexander Nützel (Bayerische Staatssammlung, München, Germany): Evolution of planktotrophy.
- Alberto Pérez-Huerta (Univ. Glasgow, UK): Palaeoclimatic impact on Late Carboniferous marine ecosystems.
- Kevin J. Peterson (Dartmouth College, Hanover, NH, USA): Molecular palaeobiology.
- Matthew R. Saltzman (Univ. Columbus, Ohio, USA): Lower Palaeozoic carbon and oxygen isotopes
- Jörg Schneider (Univ. Freiberg, Germany): Upper Palaeozoic ecosystems.
- Charles Wellman (Univ. Sheffield, UK): Land plant evolution and terrestrialization.

Conference proceedings

We are currently discussing with several editors (Geological Society London, Special Publications ; Palaeogeography, Palaeoclimatology, Palaeoecology) the possibility of producing thematic sets based on papers presented at the meeting. Further information will be available in the third circular.

Talks and posters

Talks will be included during the five days of the conference and each will last 20 minutes (including five minutes of discussion). Talks on Coger Palaeozoic topics will be concentrated on the sessions of Monday and Tuesday, August 25th and 26th. Talks on Upper Palaeozoic topics will be concentrated on the sessions of Thursday and Friday, August 28th and 29th. Parallel sessions will be avoided. Talks of general interest will be placed in the general session of Wednesday, August 27th.

Posters should be of standard DIN A0 size, portrait.

Abstracts

Talks and posters on any area of the conference topics are invited, including palaeogeography, palaeoclimatology, palaeoecology, and related disciplines. Abstracts, not exceeding one A4 page, should be sent to the address below by May 1st, 2008. State whether the abstract is for an oral or poster presentation. In case of multi-authored talks, please, indicate the speaker. Please, use 12pt serif font (such as Times New Roman), with 2.5 cm margins. The title should be in capitals. Provide authors' names in full, with affiliations and e-mail addresses of all contributors. Abstracts should be written in correct English. The organizing Comité reserves the right to accept or refuse any submission. Please, note that abstracts are only accepted for print and included in the programme if the registration fee is paid before the registration deadline (May 1st 2008).

Abstracts should preferably be submitted as an e-mail message or attachment to:

Bjorn.Kroger@univ-lille1.fr.

Excursions

Two geological field trips will be organized. Both excursions will take place, independent from the number of participants.

All pictures in this circular are from

<http://www.ulg.ac.be/geolsed/geolwal/geolwal.htm>

Excursion A:

August 23-24: Pre-conference excursion: Lower Palaeozoic of Belgium (Brabant, Condruz, Ardennes).

Field guides: J. Verniers (Gent), T. Servais (Lille), T. Vandenbroucke (Gent) and others.

The excursion will leave from Lille on Saturday, August 23, in the morning and visit Cambrian to Silurian outcrops from the Brabant Massif and the Condruz Inlier, Belgium. Outcrops to be visited include Cambrian deposits with ichnofossils, Upper Ordovician volcanics and graptolitic shales, and several highly fossiliferous horizons of the Ashgill, as well as several Silurian sequences. Touristic stops include localities at Waterloo (Napoleon's Battlefield), Villers-la-Ville (Cistercian Order Abbey, 12th century), and the city of Namur.

Fee: 200 Euros. The excursion fee includes participation in the welcoming party (evening before departure, August 22), accommodation in Namur (1 night), all meals (two lunches, one dinner, one breakfast), transport, field-guides and fieldguide booklet.

Excursion B:

August 30-31: Post-conference excursion: Upper Palaeozoic of Belgium and northern France (Avesnois, Meuse Valley). Field guides: B. Hubert, B. Mistiaen, T. Servais (Lille) and others.

The excursion will leave from Lille on Saturday, August 30, in the morning and visit Devonian and Carboniferous outcrops from the northern France and Belgium. The field trip includes localities to be visited such as Givet (historical type-locality of the Givetian), Frasnes-lez-Couvin (historical type-locality of the Frasnian), other localities in the Famenne region (historical type-locality of the Famennian), Namur (historical type-locality of the Namurian) and Dinant (historical type-locality of the Dinantian), including touristic stops at Dinant and Namur. Fee: 200 Euros. The excursion fee includes accommodation in Givet (1 night), all meals (two lunches, one dinner, one breakfast), transport, field-guides and fieldguide booklet.

Accommodation

Accommodation is not organized and should be arranged individually. There is a wide range of hotels in and around Lille (some of them in the historical city centre 'Vieux Lille'). You can book a hotel in the city centre of Lille from which you can easily walk to the campus site of the Université Catholique de Lille. Rooms (standard rooms with single and double occupancy usually range from 40 to 70 Euro). Further

information will be available in the Third Circular Meals

During the excursions, all meals are organized. During the conference, lunches are organized (five lunches for a total of 45 Euro), but evening dinners are not arranged. There is a wide range of restaurants available in town.

A gala dinner is organized on the evening of Wednesday, August 27 in the historical city centre of Tournai, type locality of the Tournaisian limestone of the Lower Carboniferous. The evening includes transport to Tournai, a guided tour through the historical part of the town, and a French style gala dinner (50 Euro).

Social events

Friday, August 22: welcoming party for all participants of Excursion A.

Sunday, August 24: Icebreaker party

Wednesday, August 27: Gala Dinner in Tournai.

Friday, August 29st: closing party and information session for Excursion B.

Arrival information

Lille is about 1 hour from Paris, 90 minutes from London and 40 minutes from Brussels by high speed trains (TGV, Thalys, Eurostar). The campus site of the Université Catholique de Lille in the city of Lille can be reached easily. It is in walking distance (10 minutes from the historical part of the city and 20 minutes from the railway stations of Lille Flandres and Lille Europe).

Precise arrival information will be provided in the Third Circular.

Grant aid to attend the Congress

Grant aid is available from both the organizing committee and IGCP 503. IGCP 503 supports members from developing countries and students to assist the congress at Lille. In addition, the organizing committee is providing support, that will preferably be given to (young) scientists travelling from outside the European Union.

Awards are limited to those making an oral or poster presentation.

Applications for grant aid should be made to Thomas Servais (Thomas.Servais@univ-lille1.fr).

Please, contact also your national IGCP committee that might be able to support your attendance at the Lille Congress.

Conference and excursions Fees

CONFERENCE: (5 days)

Registration Fee:

120 Euro (before May 1st, 2008)

150 Euro (after May 1st, 2008)

Student Registration Fee:

60 Euro (before May 1st, 2008)

75 Euro (after May 1st, 2008)

The registration fee includes attendance to all scientific sessions from Monday, August 25, to Friday, August 29, coffee and tea-breaks, ice-breaker party, and conference wallet with abstract volume and tourist information.

EXCURSIONS

Pre-conference excursion (Excursion A):
2 days, Lower Palaeozoic of Belgium: 200 Euro

Post-conference excursion (Excursion B):
2 days, Upper Palaeozoic of Belgium and northern France: 200 Euro

MEALS

Lunches

45 Euro for 5 lunches from Monday to Friday, August 25 to 29

Gala Dinner

50 Euro, including transport to Tournai, by bus, guided tour, and French style dinner.

Web page of the congress

The following web-page will be continuously updated:

<http://www.univ-lille1.fr/geosciences/>

All information will also be available at and can be downloaded from: <http://sarv.gi.ee/igcp503/>

REGISTRATION

Please send your registration before May 1st 2008 preferably by e-mail to:

Thomas Servais, USTL - Sciences de la Terre UMR 8157 Géosystèmes, Cité Scientifique SN5 F-59655 Villeneuve d'Ascq cedex (FRANCE)

Fax: (+33) (0)3 20 43 69 00 e-mail: Thomas.Servais@univ-lille1.fr

Abstracts should be submitted before May 1st 2008 preferably by e-mail to: Björn Kröger, USTL - Sciences de la Terre, UMR 8157 Géosystèmes, Cité Scientifique SN5, F-59655 Villeneuve d'Ascq cedex (FRANCE)

Fax: (+33) (0)3 20 43 69 00

E-mail: Bjorn.Kroger@univ-lille1.fr

PAYMENTS

Payments must arrive before May 1st 2008 by international bank transfer on the following bank account. Cheques are not accepted (except for French participants). Credit card payment is not possible. Transfer costs must be covered by the participants.

Bank: La Poste (France) Bank Address: La Banque Postale, Centre de Lille, 59900 Lille Cedex 9 France.

Bank account holder: Société Géologique du Nord
Account number: 20041 / 01005 / 0005247Y026 70

IBAN (international account code): FR89 2004 1010 0500 0524 7Y02 670, BIC (International Bank Code): PSSTFRPPLIL

PSSTFRPPLIL

We confirm the arrival of your payment and abstract by e-mail, as soon as it arrived.

Registration Form

NAME :

ADDRESS :

Phone:

Fax:

E-mail:

I would like to present a paper/poster with the following title:

Please book the following:

Registration Fee:

(before May 1st, 2008) 120 Euro

(after May 1st, 2008) 150 Euro

Student Registration Fee (provide student status, please) (before May 1st, 2008) 60 Euro (after May 1st, 2008) 75 Euro

Pre-conference excursion (Lower Palaeozoic) 200 Euro

Post-conference excursion (Upper Palaeozoic) 200 E.

Lunches for August 25th – 29th: 45 Euro

Gala dinner, August 27th: 50 Euro

TOTAL:

Please return this form by May 1st 2008,

With abstract and payment, to the organizers

THOMAS SERVAIS

GRAPTOLITE TREATISE WORKSHOP & IPA GRAPTOLITE WORKING GROUP MEETING will be held in Svaty Jan Pod Skalou near Prague in July 15th-24th, 2008. It is organized by Petr Štorch, Institute of Geology AS CR and Petr Kraft, Faculty of Science, Charles University.

See <http://web.gli.cas.cz/conferences/gwg/> for further information.

PETR ŠTORCH

THE CANADIAN PALEONTOLOGY CONFERENCE (CPC-2008) will take place in Winnipeg, Manitoba, from September 19th to 21st, 2008. A field trip on September 19th will visit classic Upper Ordovician sites in the Winnipeg area. Oral or poster presentations on all aspects of paleontology are welcomed. For further information, please contact Graham Young (gyoung@cc.umanitoba.ca).

GRAHAM YOUNG

The 33rd

INTERNATIONAL GEOLOGICAL CONGRESS

OSLO 2008
6-14 August

SECOND CIRCULAR



For updates visit www.33igc.org

HONORARY NOTES

Tatiana N. Alikhova (1912-2007)



It is with deep regret that we report the death of Dr. Tatiana N. Alikhova on December 11, 2007 at the age of 95. Her studies made a huge impact on the development of Ordovician research across the extensive region the East-European Platform and indeed globally.

Dr Alikhova was born in St. Petersburg and commenced her education in the University of Leningrad (Department of Palaeontology). Later all the students in geology were transferred to the Leningrad Mining Institute, where she graduated in 1933. Professor M.E. Janishevsky and his Ph.D. student B.P. Assatkin encouraged her to study the abundant and well-preserved Ordovician brachiopods of the Leningrad area. While a student she took part in the mapping of the western part of the “Ordovician Plateau” which was supervised by B.P. Assatkin. Her diploma dissertation was devoted to the Ordovician (Lower Silurian at that time) brachiopods, stratigraphy and facies of this region. From that time onwards Ordovician brachiopods became her ultimate passion, a passion that continued for the rest of her life.

Following university, T.N. Alikhova worked as a paleontologist for the North-Western Geological Survey and was involved in prospecting projects on the Kukersite oil shales. In 1937 after reorganization of the Survey, she was employed as a curator of the paleontological collections in the Geological Museum of the Leningrad Mining Institute. In this position she

engaged in an extensive revision and rearrangement of the palaeontological collections stored in the Museum. This work prepared the way for the International Geological Congress in Moscow in 1937. Soon afterwards she became a PhD student of I.I. Gorsky in the All-Union Geological Research Institute (VSEGEI).

Her PhD thesis, on the Ordovician brachiopods of the Leningrad area was completed in May 1941, a month before the German invasion. As with many other citizens she was recruited for the construction of defences around the city. Her supervisor B.P. Assatkin died from hunger during the siege of Leningrad but she survived and was evacuated on “The Road of Life” through the Lake Ladoga in 1942. After recovering from dystrophy she defended her thesis in 1944 in Saratov where the University of Leningrad was temporarily located. In late 1944, when the siege of Leningrad was lifted, she returned to VSEGEI and took part in the reconstruction of its buildings and the revival of its scientific activity. She had already started field investigations in the spring of 1945 on the classic Ordovician exposures in northwestern Estonia.

In 1951 the monograph based on her PhD thesis “Brachiopods of the middle and upper parts of the Lower Silurian of the Leningrad area and their stratigraphical significance” was published. This was a landmark monograph, well illustrated and with useful range data. This was followed in 1953 by a substantial monograph on the key Ordovician brachiopod taxa from the north-west Russian Platform. For many years these monographs were the primary source of reference for the important brachiopod faunas of the east Baltic area and used extensively in global analyses of the Ordovician and its faunas by many authors. Just after World War II a new drilling project commenced to investigate the sedimentary cover of the East European platform. Within the framework of the programme, T. N. Alikhova actively undertook investigation of the Ordovician stratigraphy and fossils from the cover succession. She studied the brachiopods recovered by drilling throughout the entire platform. Among her main achievements was the recognition of Tremadoc deposits and definition of the Cambrian-Ordovician boundary on the East European platform. By using comparative analysis of the Ordovician fauna from the European part of the USSR, Sweden, Norway, Great Britain and USA she established paleontological criteria to correlate the East European and British Ordovician deposits as well as regional stages within the platform. Results of this extensive work were summarized in her important monograph “Stratigraphy of the Ordovician deposits of the Russian platform (1960)”.

In the following years she became a leading authority on Ordovician stratigraphy and brachiopods. She was one of the lead authors of the ‘Unified Stratigraphical

Chart for the Ordovician of the Russian Platform', which was compiled in 1962 and officially adopted in 1965. Tatiana N. Alikhova also worked as a scientific editor for Ordovician chapters in many reference books on the geology of the USSR, such as "Stratigraphical Lexicon of the USSR", "Geological Glossary" and "Geological Structure of the USSR". In addition she contributed important material on the Brachiopoda to the Russian version of the 'Treatise on Invertebrate Paleontology', *Osnovy Paleontologii*. For many years she worked in the section for Ordovician and Silurian stratigraphy of the Interdepartmental Stratigraphical Committee of the USSR. Her last monograph "The Middle Ordovician stratigraphy and brachiopods of the Moscow basin (1969)" was devoted to Ordovician rocks and fossils from completely unknown subsurface strata.

After her retirement in 1976 she continued to work as an expert and advisor. Despite health problems that prevented outdoor activity, she was always ready to share her vast knowledge and enthusiasm with anybody interested in Ordovician stratigraphy and brachiopods. Colleagues and friends remember her strong character, her perfectionism and her deep respect for scientific work. She continued to help the friends of the Ordovician until the very last years of her life. Being virtually blind she dictated her memoirs about the history of the Ordovician research in the region by using a tape recorder. These memoirs are to be prepared for publication in the very near future and will be a remarkable record of research on one the world's key Ordovician regions.

ANDREY V. DRONOV

MISCELLANEA

COMMENTS

I would like to stress again that the questions asked by Philip Legrand some time ago are most important because turn our attention to exactness of our stratigraphical language. I do agree that in many respects it should be much better, in case of highly condensed sections, being most dangerous, in particular.

DIMITRI KALJO

Call for cooperation: I am continuing my investigations on the chemical composition of the chitinozoan vesicles. During the processing of my samples, I sorted graptolites (rhabdosomes and sicula) and made similar chemical analyses for comparison with the composition of the chitinozoans. If some graptolite workers have already made similar analyses or are interested by some collaboration, please contact me.

FLORENTIN PARIS

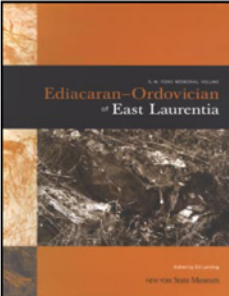
BOOKS, JOURNALS

Estonian Journal of Earth Sciences

Starting from 2007 the quarterly peer-reviewed geological journal formerly known as *Proceedings of Estonian Academy of Sciences - Geology* has been renamed to *Estonian Journal of Earth Sciences*. Together with the name change, the format was increased and the layout changed to better accommodate geological and palaeontological contributions. The editorial policies were also reviewed and the journal is now declared as an Open Access journal, with all papers starting from 2006 being freely available for downloading and redistributing from the publishers website at <http://www.kirj.ee/earthsciences> as well as from the Director Open Access Journals (<http://www.doaj.org>). The journal has traditionally covered an important part of the Ordovician and Silurian research in the eastern Baltic area. The geographical scope of the journal is nevertheless not limited to Estonia or Baltic region and thus we invite you to submit manuscripts from other regions and on different topics of Ordovician and Silurian stratigraphy and palaeontology. Shorter papers can usually be published very quickly. Full instructions for authors are available at <http://www.kirj.ee/earthsciences>.

DIMITRI KALJO, Editor-in-Chief
OLLE HINTS, Associated Editor

NEW YORK STATE MUSEUM
RESEARCH and COLLECTIONS DIVISION
Presents



S W FORD MEMORIAL VOLUME

Ediacaran-Ordovician of East Laurentia

Edited by Ed Landing

The *Ediacaran-Ordovician of East Laurentia* is a product of the 12th International Symposium on the Cambrian System held in eastern New York and western Vermont in July and August of 2007.

This well illustrated, important contribution includes a new regional summary of Ediacaran-Ordovician epirogeny, tectonics, eustasy, and oceanic oxygenation along the New York Promontory ["the best new synthesis in 50 years" — reviewer], a detailed week-long field trip guide, and abstracts of oral and poster presentations of international studies on the Cambrian Period.

New York State Museum Bulletin 510, 94 p., 30 figs., 2007

\$17.95

Contents

Dedication to S. W. Ford, E. Landing
East Laurentia 2007—pre-meeting statement, E. Landing
Ediacaran-Ordovician of east Laurentia—geologic setting and controls on deposition along the New York Promontory, E. Landing
Cambrian of East Laurentia: field workshop in eastern New York and western Vermont, E. Landing, D. A. Franz, J. W. Hagadorn, S. R. Westrop, B. Kröger, and J. Dawson
Abstracts of Oral and Poster Presentations

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ED LANDING

Special volume of *Geologica Acta*

Lower Paleozoic Biostratigraphy of South America: New contributions and advances. Albanesi, Guillermo L. and Ortega, Gladys (eds.). 2008. *Geologica Acta* (SCI-ISI), Barcelona, 6 (2): 110- 210. The present issue consists of a series of selected papers that were presented as abstracts in the “9º Congreso Argentino de Paleontología y Bioestratigrafía” held in Córdoba, Argentina, on September 18-22, 2006. These contributions were invited papers from the total presented in the 2nd symposium of the congress, entitled “Bioestratigrafía del Paleozoico inferior” (i.e. Lower Paleozoic Biostratigraphy).

Index:

- Bordonaro, O.L., Banchig, A.L., Pratt, B.R. and Raviolo, M.M. 2008. Trilobite-based biostratigraphic model (biofacies and biozonation) for the Middle Cambrian carbonate platform of the Argentina Precordillera. *Geologica Acta*, 6(2): 115-129.
- Di Pasquo, M.M. and Noetinger, S. 2008. First record of Early Devonian (Lochkovian) flora from the Santa Rosas Formation – Alarache, Southern Bolivia. *Geologica Acta*, 6(2): 191-210.
- Gutiérrez-Marco, J.C., Albanesi, G.L. and Sarmiento, G.N., Carlotto, V. 2008. An Early Ordovician (Floian) Conodont Fauna from the Eastern Cordillera of Peru (Central Andean Basin). *Geologica Acta*, 6(2): 147-160.
- Ortega, G., Albanesi, G.L., Banchig, A.L. and Peralta, G.L. 2008. High resolution conodont-graptolite biostratigraphy of the Mid-Late Ordovician in Sierra de La Invernada Formation (Central Precordillera, Argentina). *Geologica Acta*, 6(2): 161-180.
- Uriz, N.J., Alfaro, M.B. and Galeano Inchausti, F.C. 2008. Silurian (Llandovery) monograptids from the Vargas Formation (Parana Basin, Eastern Paraguay). *Geologica Acta*, 6(2): 181-190.
- Zeballo, F.J., Albanesi, G.L. and Ortega, G. 2008. New late Tremadocian (Early Ordovician) conodont and graptolite records from the southern South American Gondwana margin (Eastern Cordillera, Argentina). *Geologica Acta*, 6(2): 131-145.

Internet download at: www.geologica-acta.com

GUILLERMO L. ALBANESI AND GLADYS ORTEGA
Guest Editors

Special Volume of *Revue de Micropaléontologie*

Palaeozoic palynology and micropalaeontology: applications in stratigraphy and palaeoecology. Selected studies in honour of Professor Marco Tongiorgi. Vecoli, Marco (ed.) (CNRS, University of Lille, France).



Marco Tongiorgi adorned with the "*Ordine del Cherubino*" medallion awarded by the University of Pisa, April 1994.

A special volume, comprising the first two issues of the year 2008 of *Revue de Micropaléontologie* will be dedicated to Professor Marco Tongiorgi to commemorate his retirement, in December 2003, as Full Professor of Stratigraphy and Palaeontology in the Department of Earth Sciences of the University of Pisa, Italy. Marco Tongiorgi has dedicated a large part of his scientific career to the study of Ordovician acritarchs, contributing much to the knowledge on palaeobiology, palaeoecology and palaeobiogeography of Ordovician oceanic microphytoplankton as well as to the application of acritarchs to high-resolution biostratigraphy.

The special volume is already available on line (<http://www.sciencedirect.com/science/journal/00351598>), and contains the following selection of 9 scientific papers mainly dealing with Ordovician and Palaeozoic palynology and micropalaeontology, reflecting the range of interests and research approaches of Marco Tongiorgi:

A speculative review of factors controlling the evolution of phytoplankton during Paleozoic time – by Paul K. Strother.

Stratigraphic distribution of selected acritarchs in the Ordovician subsurface, Canning Basin, Western Australia – by Marco Quintavalle and Geoffrey Playford.

Upper Ordovician microphytoplankton of the Bill's Creek Shale and Stonington Formation, Upper Peninsula of Michigan, U.S.A.: Biostratigraphy and paleogeographic significance – by Reed Wicander and Geoffrey Playford.

A Middle and Late Cambrian age for the Booley Bay Formation, County Wexford, Ireland: new acritarch data and its implications – by Michel Vanguetstaine and Peter M. Brück.

The Ordovician acritarch genus *Coryphidium* – by Thomas Servais, Jun Li, Stewart G. Molyneux and Marco Vecoli.

Revision of Famennian-Tournaisian (Late Devonian – Early Carboniferous) conodont biostratigraphy of Sardinia, Italy – by Carlo Corradini.

Pennsylvanian miospore assemblages from the Bèdero Section, Varese, Italian Southern Alps – by Paola Pittau, Myriam Del Rio, Francesca Cotza, Ausonio Ronchi, Giuseppe Santi, Renato Giannotti

Upper Tremadoc–Lower Arenig? Anisograptid–Dichograptid fauna from the Cabitza Formation (Lower Ordovician, SW Sardinia, Italy) – by Gian Luigi Pillola, Sergio Piras and Enrico Serpagli.

Eurytholia plates (Problematica) from the late Silurian of the Austrian Carnic Alps – by Annalisa Ferretti and Enrico Serpagli.

MARCO VECOLI
Editor

CURRENT RESEARCH

ACEÑOLAZA, FLORENCIO GILBERTO (Argentina). Research is being done on the Cambro-Ordovician strata of W and NW Argentina (Puna – Cordillera Oriental, Famatina and Precordillera). Early described and new paleontological data is being revisited, and the testing of the origin of Cuyania Terrane (western Argentina) will continue. Research is done in collaboration with Alejandro Toselli (Tucumán), Hubert Miller (München), Silvio Peralta, Susana Heredia (San Juan) and Stan Finney (Long Beach).

ACEÑOLAZA, GUILLERMO F. (Argentina). Work continues on the Cambro-Ordovician biostratigraphy of the siliciclastic sequences of NW Argentina, focusing on trace fossil associations and their environmental and ecological significance. A multi-disciplinary project involving several lines of research is being carried out on the sequences of NW Argentina and S Bolivia, with collaboration of Juan Pablo Milana, Susana Heredia (San Juan), Franco Tortello (La Plata), Susana Esteban, Maria del Milagro Vergel (Tucumán), Juan Carlos Gutiérrez Marco (Madrid, Sapin), Artur Sá (Vila Real, Portugal), Marcello Simoes, Juliana Leme and Sabrina Coelho (Botucatu, Brasil).

AGEMATSU, SACHIKO (Japan). I am working on the Ordovician to Devonian conodont biostratigraphy in Thailand and Malaysia now.

ALBANESI, GUILLERMO L. (Argentina). I continue working on lower Paleozoic conodont faunas from western and northwestern Argentine basins, as well as particular localities in other regions of South America. We are leading an extended project on high-resolution conodont-graptolite biostratigraphy for the Ordovician and Silurian systems of Argentina in cooperation with Gladys Ortega. Besides, a new project on conodont paleothermometry from the Precordillera, and

biostratigraphy and paleoenvironments from the Eastern Cordillera are being carried out by PhD students, F. Zeballo and G. Voldman, under my supervision. As in previous years, I continue collaborating with colleagues from different universities of Argentina and other countries on diverse topics of historical geology from the lower Paleozoic of South America, by means of conodont taxonomy, biostratigraphy and paleothermometry.

ALDRIDGE, RICHARD J. (UK). My Ordovician interests continue to centre on the Soom Shale lagerstätte of South Africa. a paper on caryocaridids from the soom was published with rowan whittle as first author, and another on scolecodont apparatuses is very near completion. Work on soom brachiopods, agnathans and new conodont apparatuses progresses fitfully. Some readers may be interested in a paper now online on the interrelationships of complex conodonts (doi: 10.1017/s1477201907002234).

ÁLVARO J. JAVIER (España). I am currently working in different aspects of the Cambrian Ordovician transition and the Katian-Hirnantian strata of the western Mediterranean region (Morocco, Spain and France). During the last years my work has been focused on the biodiversity patterns, carbonate productivity, glacial processes, and chemostratigraphic controls of these intervals. Enrique Villas and I organized in September the regional meeting of the IGCP Project 503 in Zaragoza (Spain), and future work will try to improve our knowledge about: (i) the trilobite and conodont diversity of the Early Ordovician, in collaboration with E. Serpagli, A. Ferretti (Modena), and D. Vizcaíno (Carcassonne); (ii) volcanosedimentary rocks and stratigraphic gaps; and (iii) the karstic and glacial processes that succeeded across the Katian Hirnantian transition in SW Europe and Morocco.

ARÁOZ, LUCÍA (Argentina). I'm currently working on Early Paleozoic palynomorphs (acritarchs) from Cordillera Oriental of NW Argentina. My Doctoral Thesis focuses on the record of Ordovician microfloras from Sierra de Zenta (Salta and Jujuy provinces), and biostratigraphic aspects, with special emphasis in the Tremadocian – Arenigian transition and Ordovician – Silurian boundary. I expect to present my Doctoral Thesis during 2008 in the National University of Tucumán (Argentina).

ARMSTRONG, HOWARD A. (UK). I'm actively working on Middle and Late ordovician climate change, particularly focussing on high latitude sections in Gondwana. A number of projects are addressing the teleconnections between climate systems (ITCZ, trade winds) and how changes in these impact on the ocean system.

ASTINI, RICARDO A. (Argentina). I continue to work in the Early Paleozoic evolution of the accretionary margin of western Gondwana in aspects dealing with sedimentology, advanced stratigraphy, contrasted paleoenvironments, paleogeography and tectonics. I

am currently working in collaboration with various colleagues abroad and expanding on various topics as more and more students are included in projects funded by our national agencies (CONICET and FONCYT).

AUSICH, WILLIAM I. (USA). I am working on the Ordovician and early Silurian crinoids from Anticosti Island and on various Ordovician faunas from elsewhere. Additionally, I am looking at the macroevolutionary dynamics of crinoids across the Ordovician-Silurian boundary, as this is one of the two major faunal changes among crinoids during the Paleozoic.

BARNES, CHRIS (Canada). Work with Shunxin Zhang is using my extensive conodont database to relate conodont biostratigraphy, biofacies and biogeography to the pattern of eustasy and tectonism that affected northern Laurentia in the early Paleozoic. Several joint papers have appeared recently with others in press and preparation, which deal with Ordovician and Silurian conodont taxonomy, evolution, paleoecology, and the response of the conodont communities to eustatic change. The geochemistry of conodonts is being pursued further in collaboration with Julie Trotter (Australian National University and CSIRO). Other work in press includes: Late Ordovician-Early Silurian conodonts from the Edgewood Group, Missouri-Illinois (with Tyler Kuhn and Felicity O'Brien). Other work nearing completion includes: Late Ordovician conodonts from southern Ontario (with Shunxin Zhang and Glen Tarrant); Ashgill-Wenlock conodonts from the Canadian Arctic with David Jowett; and Ashgill conodonts from the Whitland section, South Wales with Annalisa Ferretti.

BEDNARCZYK, WIESLAW STANISLAW (Canada). I am actively working on Lingulata brachiopod communities and their palaeobiofacies in the Ordovician of Poland.

BERESI, MATILDE SYLVIA (Argentina). I am currently working on Ordovician biostratigraphy from San Juan and Mendoza (western Argentina) with Susana Heredia (conodonts) and Gladys Ortega (graptolites). With B. Kroger and E. Landing I have recently published a paper describing the first reported Orthoceratoid nautiloids from the Lower-Middle Ordovician San Juan Formation in the Journal of Paleontology.

BERGSTRÖM, STIG M. (USA). Although I am formally retired, I work regular hours on a daily basis in my office and get more done these days than a few years ago when department duties occupied most of my time. This past year has been very enjoyable and scientifically productive with nine papers and five abstracts published, most of them co-authored. Among these is a study of the conodont biostratigraphy in the key sections in central Sweden where the Middle and Upper Ordovician Atlantic conodont zonation was first established. I have currently about ten contributions in press or review. Most deal with

Ordovician matters but the topics vary a great deal from conodonts to ^{13}C chemostratigraphy to K-bentonites, etc. I am currently involved in quite a few projects in northern Europe, North and South America, and China. Last summer, I did fieldwork in Sweden and gave an invited lecture at the WOGOGOB conference there in August. In June, I spent three productive weeks in China, a stay that also included participation in the Nanjing Ordovician symposium, and I returned to that country in October. When this is written in early February, I am just back from a month-long, mostly non-geology, trip to Sweden and South Africa.

CARLOROSI, JOSEFINA (Argentina). I have recently started my PhD with a grant of CONICET, my research focuses on the Lower and Middle Ordovician Conodont fauna from the Cordillera Oriental of NW Argentina. The work is being done under the direction of Susana Heredia (San Juan) with the collaboration of Guillermo Aceñolaza, Susana Esteban (Tucumán) and Graciela Sarmiento (Madrid).

CARRERA, MARCELO G. (Argentina). I'm continuously working on lower Paleozoic sponge taxonomy, paleogeography and paleoecology, including diversification and extinction patterns. A comprehensive analysis, coauthored by Joe Botting, of Cambrian sponge diversification patterns is in press now in *Palaeos* scheduled for March 2008. Every field trip in the Ordovician of western Argentina brings up new sponges to be classified and described. This is the case of a new Tricranocladine demosponge discovered from the lower Ordovician limestones of the Argentine Precordillera, which modified the evolutionary view established for the suborder.

CHEN, XU (China). I am actively working on the Upper Ordovician Graptolites from China with Dan Goldman, Zhang Yuandong and Fan Juanxuan. It will be a monograph and may take time. Most of time I am working as a chief scientist of a major research project "Marine Strata of China" supported by the SINOPEC, one of the largest oil company in China. Have organized 83 scientists with a few administrations of the Nanjing Institute working on the project. The Marine Strata include Late Paleozoic to Triassic. On the other hand, have completed two papers on the Ordovician Chronostratigraphy and Upper Ordovician isotopic analysis with Stig Bergstrom this year.

CINGOLANI, CARLOS (Argentina). I am actively working on the provenance, paleogeographic and tectonic implications of the Lower Paleozoic sediments from Precordillera-Cuyania Terrane in Argentina. The research group under my direction, are working on biostratigraphy, petrography, geochemistry, isotopic and geochronological lines. As a co-supervisor, a PhD thesis is in the final stage of evaluation on Lower Paleozoic provenance sediments from Precordillera of San Juan-

Mendoza. The last contribution of the research group stress the presence of Caradoc-age sedimentary rocks on the western region of the San Rafael Block, Mendoza, that could be an extension of the Western Precordillera tectofacies. Another PhD thesis is still in progress about the Ordovician sediments and mafic lavas from the northern region of Precordillera (Jagüe, La Rioja).

COCKS, L. ROBIN M. (UK). 2007 was another busy year: the key achievement of which was the submission, revision and acceptance of a Palaeontological Society Monograph reviewing the British and Irish Lower Palaeozoic brachiopods, to be published in 2008. Amongst other papers submitted during the year was one with Richard Fortey on the geological history and origins of Avalonia, and another with Trond Torsvik on the palaeogeography of the Turkey to New Zealand sector of Gondwana and peri-Gondwana in the Cambrian to Silurian, both to the Geological Society of London. A paper with Leonid Popov on British Silurian linguloids has been accepted by Palaeontology. More palaeogeographical work with Trond is in progress, as well as a revision of Caradoc strophomenoid brachiopods from England and Wales. Apart from the Chinese Ordovician-Silurian Congress and the usual working visits to Trondheim, my travel was somewhat restricted due to three jaw operations.

COUTO, HELENA (Portugal). I'm working on the study of Palaeozoic stratigraphy, palaeontology and gold-antimony mineralizations in Baixo-Douro area (North Portugal). These studies aim defining prospecting guides for metals and contributing for a better knowledge of the Palaeozoic stratigraphy. Detailed studies were and are being developed on the Cambro-Ordovician transition, Lower Ordovician volcano-sedimentary layers, ironstones and black layers bearing volcanogenic prints with organic matter, hydrocarbures, fossil algæ and bryozoa (that exert a control of gold mineralization) and on the Upper Ordovician deposits related to the Late Ordovician glaciation. The Hot Cathodoluminescence equipment (Geology Centre, University of Porto) evidences to be an important tool in these studies.

DRONOV, ANDREI (Russia). I am presently working on following projects: 1) comparative analysis of the biotic events, basin evolution and sea-level changes on the Russian and Siberian platforms during the Ordovician. This 3 years project started in 2007 and aimed among others elaboration of sequence stratigraphic framework for the Ordovician of Siberian platform. The team includes Alexandr Kanygin, Alexandr Timokhin, Taras Gonta (all from Novosibirsk), Tatiana Tolmacheva, Elena Raevskaya and Jakov Gogin (from St. Petersburg); 2) study of the Ordovician trace fossils and ichnofabrics from St. Petersburg region and Siberia (together with Radek Mikuláš); 3) reconstruction of the detailed facies profile and sea-level curve for the North-Estonian

Confacies belt in the Ordovician basin of Baltoscandia. This work performs together with Tõnu Meidla, Leho Ainsaar, Tõnis Saadre and Rein Einasto.

DUBININA, SVETLANA (Russia). I am actively working on Early to Late Ordovician conodonts from various rock complexes of the Ordovician convergent margin investigated in the Southern Urals structure. I have already elaborated first variant of the Ordovician conodont scale of the Southern Urals. It will be published in the Russian Journal of Earth Sciences in 2008. But I hope to improve this scale in the nearest future. In this topic I continue to collaborate with structural geologist Aleksei Ryazantsev, Moscow, GIN RAS. I am working in cooperation with Andrei Dronov (Moscow, GIN RAS) on conodonts across the Aseri-Lasnamagi-Uhaku regional stages in the Mishina Gora Section (Pskov Region), as well as on Early Ordovician conodonts of Leningrad area. Besides, I and my colleagues Korchagin, O.A. (Moscow, GIN RAS), Tsel'movich, V.A. (Geophysical Observatory Borok – Branch of Institute of Physics of the Earth, RAS, Borok) have repeated the investigation of the Batyrbay section, Malýi Karatau of south Kazakhstan, because today we see increasing of interest to revising of volumes and boundaries of Stages and Series in the Cambrian and Ordovician, as well as to the events of this time. The description of iron spherules and particles, found in the deep-water limestone layer in the middle part of the conodont *Cordylodus primitivus* Zone in the middle Upper Cambrian of the Batyrbay section, and formed during the time of global sea-level changes known as a world-wide Lange Ranch Eustatic Event, have been done. From our point of view, finds of iron spherules and particles may evidence about new unknown yet Event of cosmic origin, i.e. falling of a meteorite on Earth in the middle Late Cambrian.

ELIAS, BOB (Canada). Boo-Young Bae completed her Postdoctoral Fellowship at University of Manitoba and is now continuing postdoctoral studies in Korea. Boo-Young, Dong-Jin Lee (Andong National University), and I have two papers in press on the tabulate chain-coral *Manipora* from the Ordovician of Manitoba. Multivariate analyses are applied for differentiation of closely related species, and life-history strategies in response to environmental conditions are examined in detail for one of the species. Together with Mari-Ann Motus (Tallinn University of Technology), we are studying growth patterns and morphologic variability of the tabulate coral *Eofletcheria* from the Ordovician of Estonia. Dong-Jin, Sung-Kyu Woo (Andong National University), and I have a paper in press on species of *Lichenaria* from the Ordovician of Tennessee. The degree of paleobiologic complexity and level of colony integration are surprisingly high for a tabulate coral considered to be primitive. I, together with Graham Young (adjunct professor), welcome

inquiries and applications from students interested in graduate studies at University of Manitoba. M.Sc. and Ph.D. projects are available on Ordovician corals, paleoecology, and stratigraphy [see umanitoba.ca/geoscience/people/faculty/elias/elias.html]. Adam Melzak's Ph.D. dissertation on rugose corals of the Late Ordovician to earliest Silurian Vaureal, Ellis Bay, and Becscie formations of Anticosti Island, Quebec, is being prepared for publication. Lori Stewart has started an M.Sc. thesis on the stratigraphy, paleoenvironments, and paleoecology of a fascinating, newly exposed Upper Ordovician section in Manitoba.

ERDTMANN, BERND-D. (Germany). I have been silent for some time. There are several reasons for this, one being that I am now retired from my 39 years (1965-2004) of university career having served at the University of Oslo, Norway (1962-1965), Université Laval at Quebec City, Canada (1966), Carleton University at Ottawa, Ontario, Canada (1966-1968), Indiana University at Fort Wayne, IN, USA (1968-1979), Arizona State University, Tempe, AZ, USA (1978-79), Heisenberg-Professor at the University of Göttingen, Germany (1979-1987) and finally at the Technical University Berlin, TUB (1987-2004) from where I retired on Oct. 1, 2004. Another reason for my apparently recently "reduced" Ordovician activity was simply that I was shifting my main scientific research to the „dynamics“ of earliest metazoan evolution, which is so well documented in China. I was privileged to have lead a cooperative Sino-German research project between 2002 and 2004, which directly involved altogether ca. 40 geoscientists of all major geoscientific subdisciplines. My involvement in this project began in 1988 and eventually "side-tracked" me away from Ordovician projects. My last major scientific work on the Ordovician System (of course, mostly graptolite biostratigraphy) was in Bolivia and northern Argentina (1993-1997) and, more recently, on the Lower Ordovician graptolite sequences at Slemmestad (SE of Oslo, Norway) and in the "slope belt" (so called Jiangnan Facies) of southern China. The main concern of enlisting in this Newsletter, however, is not to present my scientific autobiography, but to inform all my Ordovician friends and colleagues about the fate of my extensive and stratigraphically well-logged graptolite collections, which I had assembled at TU Berlin and which included collections, which I had made during my studies at the University of Oslo and onwards. Due to urgent space problems at TUB in Berlin, where ca. 20.000 graptolite specimens were stored and curated under next to ideal conditions for well over 17 years, I was „urged“ to move these collections elsewhere upon my retirement. In short, thanks to the initiative of the late Dr. Jaroslav Kraft (University of Pilsen, Czech Republic) and his son, Dr. Petr Kraft (Charles University, Prague) I was offered to move all this material to the Palaeontology Department of the West

Bohemian Museum in Pilsen, Czech Republic. During November 2004, several truck -loads of graptolite slabs left Berlin and are now safely stored at the West Bohemian Museum in Pilsen. Every slab specimen had been marked by a special coding system (see below) already adopted by myself in the decades before, to which the new museum codes were simply added. Thus, the geographic and detailed stratigraphic logging system is maintained at the new Pilsen location. The coordinates of the "Erdtmann Graptolite Collection Repository" are as follows:

Address: Palaeontology Department, West Bohemian Museum in Pilsen; 2 Kopeckého sady; CZ 30100 Plzen (Pilsen), Czech Republic; Tel: +420377237604 (Zapadoceske muzeum v Plzni), Department of Palaeontology (Oddeleni paleontologie), Kopeckeho sady 2, CZ 301 00 Plzen, Czech Republic)

Curator: RNDr. Josef Psenicka, PhD. Head of Palaeontology Department, West Bohemian Museum in Pilsen; Tel: +420604740410; e-mail: jpsenicka@zcm.cz (Workplace and location of the collection: Tylova 22, CZ 301 00 Plzen, Czech Republic)

External Curator: Dr. Petr Kraft, Institute of Geosciences, Charles University in Prague, Albertov 6, CZ 128 43 Prague 2, Czech Republic; e-mail: kraft@natur.cuni.cz

Stratigraphic Range of Collections: Latest Cambrian to Early Devonian (90 % of the material is of Lower to Middle Ordovician age). Neo-Geographic Origin of Collection Materials: Norway (incl. Oslo, Slemmestad, etc.; Digermul Peninsula in Finnmark), Sweden, Germany, Belgium, Spain, United Kingdom (incl. S. and N.Wales), North America (incl. C/O GSSP section in western Newfoundland, Quebec, New York State, Indiana, Utah, Idaho, Nevada, etc.), South America (incl. Bolivia, N. Argentina), Eastern Asia (incl. S. and N. China, S. Korea, Malaysia), Australia (New South Wales and Victoria), New Zealand (incl. Aorangi, South Island), and Africa (Morocco).

Coding System: The collections are organized by country of origin, then name of section, then stratigraphic levels plus numerical (usually 3 digits) registration nos. A key for deciphering these codes, which are firmly marked (not always water or acid resistant!) on each rock slab, are both obtainable from computerized lists as well as from a filing card box at the nuseum location. Furthermore, all my bibliographic references, monographs as well as reprints on graptolites and their biostratigraphy are kept in the same repository room in Pilsen as are the collections.

It is easy to make time-flexible advance arrangements through either Dr. Josef Psenicka or Dr. Petr Kraft for any serious scientist to study this vast material in Pilsen. It is my pleasure and privilege to thank the late Dr. Jaroslav Kraft and my colleagues Drs. Petr Kraft and Dr. Josef Psenicka for this opportunity to

save this unique fine-stratigraphically logged collection from potential neglect at TUB and to make it available to all scientists who are interested in refining both systematics, phylogenies, and biostratigraphic as well as chemostratigraphic (black shale organic and element history) implications of graptolites.

ESTEBAN, SUSANA B. (Argentina). I continue working on Cambrian-Ordovician fine clastic rocks of west and northwest Argentine basins. Our approach is based on the integration of sedimentologic and biostratigraphic data within a sequence stratigraphic. This work is being done in cooperation with Franco Tortello (Universidad de La Plata). Now we are involved in the study of oxygen-deficient facies and the trilobite faunas associated.

FENG, HONGZHEN (China). Working with B. -D. Erdtmann and other colleagues in 2007, I continued to carry out "Biological Zonation, Cladistic Evolution and Environmental Response of Late Tremadoc Graptolites from Jiangnan Slope", a project of three years supported by the Natural Science Foundation of China. A graptolite succession of Upper Tremadocian has been recognized in the Nanba section of the Yiyang area, Hunan Province, South China. It includes in ascending order: the *Adelograptus tenellus* Zone, the *Aorograptus victoriae* Zone, the *Araneograptus murrayi* Zone and the *Hunnegraptus copiosus* Zone. In addition, I investigated horizons upwards into the Floian Stage in the same section and found four additional graptolite zones: the *Tetragraptus approximatus* Zone, *Pendeograptus fruticosus* Zone, the *Didymograptellus eobifidus* Zone and the *Corymbograptus deflexus* Zone. The Nanba section is the only section known so far in China to demonstrate so complete graptolite zones of Upper Tremadocian to Lower Floian, and these zones can be correlated directly with the same zones in Scandinavia, where the GSSP for the boundary between Tremadocian and Floian was recently ratified by ICS and IUGS. There exists no hiatus below Floian in the Nanba section since the *T. approximatus* Zone is underlain directly by the *H. copiosus* Zone, which suggests a potential for the Nanba section to become an auxiliary reference section of the GSSP for the boundary between Tremadocian and Floian.

FERRETTI, ANNALISA (Italy). My Ordovician research continues to be concentrated on conodont faunas from South Europe. The new conodont genus *Hammannodus*, dedicated to the memory of our friend Wolfgang Hammann, has been recently erected from the Tremadocian of the southern Montagne Noire, France (with Enrico Serpagli, Daniel Vizcaïno and José Javier Álvaro). The unusual richness and good preservation of the assemblage allowed also a taxonomic revision of the conodont genus *Teridontus* (with Enrico Serpagli and Robert Nicoll). Late Ordovician ostracode faunas from Iran and Sardinia were recently described by Roger Schallreuter and

Ingelore Hinz-Schallreuter basing on material provided by Marco Balini and myself (Iran) and by myself and Enrico Serpagli (Sardinia). I am also actually involved, together with Alessandra Negri, Phil Meyers, Petr Štorch and Thomas Wagner, in editing a Special Issue of Palaeogeography, Palaeoclimatology, Palaeoecology concerning "Organic carbon rich sediments through the Phanerozoic: Processes, Progresses and Perspectives".

FINNEY, STAN (USA). My activities for the past year are: 1) Serving as Vice-Chair of International Commission on Stratigraphy and being elected as Chair of ICS with my term to begin in August 2008.

2) Work with Chuck Mitchell, Mike Melchin, Petr Štorch, Dave Sheets, Chris Holmden, and Dan LaPorte on the Late Ordovician graptolite extinction, using evidence from the Vinini Creek section of Nevada. 3) Completion of the editing of manuscripts for the Ordovician Earth Systems volume. 4) Developing a manuscript on all my zircon data from the Argentina Precordillera.

GHOBADI POUR, MANSOUREH (Iran). I am currently working on various aspects of Ordovician faunas, biostratigraphy and biofacies of Iran and central Asia. My ongoing research projects include studies of silicified Middle Cambrian trilobites from Kyrgyzstan, Late Ordovician trilobites from Kazakhstan and Ordovician trilobites and ostracods from Iran including the eastern Alborz Mountains and eastern Central Iran. I am also working in cooperation with Leonid Popov from National Museum of Wales in a study of the brachiopod faunas from the Cambrian-Ordovician of Iran.

GONCUOGLU, M. CEMAL (Turkey). I am continuing to study the Ordovician of the Perigondwanan terranes; Tauride-Anatolide terrane in the S as well as Istanbul and Zonguldak terranes in the N Turkey.

HARPER, DAVID A. T. (Denmark). My research continues on Ordovician stratigraphy and faunas in Scotland (with Yves Candela, Euan Clarkson and Alan Owen), Ireland (with Matthew Parkes, George Sevastopulo and Svend Stouge), Greenland (with Jan Audun Rasmussen, Christian Mc Ørum Rasmussen and Svend Stouge), western Russia (with Christian Mac Ørum Rasmussen and Arne Thorshøj Nielsen) and the greater Himalayan region (with Nigel Hughes and Lars Holmer). Work continues with Rong Jia-yu, Chen Xu and Zhan Ren-bin on refining events during the late Ordovician and early Silurian in South China, a critical area for the understanding of the Hirnantian Substage, the late Ordovician extinctions and early Silurian recovery. Further additions to PAST have continued to enhance the popularity of this free software package for palaeontologists (*PAST - Paleontological Statistics Software. Version 1.78* is available at <http://folk.uio.no/ohammer/past>). Publication of a paper in *Nature Geoscience* (Schmitz et al. 2008) linking an asteroid shower to the Great Ordovician Biodiversification Event (GOBE) has

created considerable interest with reviews in *Science*, *Nature Geoscience* and an article in *New Scientist*. This has brought a much greater focus on this important event and hopefully will continue to stimulate a new line of research on the system. The success of the Ordovician IGCP (503) 'Ordovician palaeogeography and palaeoclimate' continues; newsletters are available (<http://sarv.gi.ee/igcp503/>). Within the frame of the project Harper is a co-leader and is currently assembling a group of specialists to investigate the relationships between sea-level change, biofacies and bioevents. A thematic issue of *Lethaia* is in press that includes contributions from the successful Glasgow meeting in August 2006. The final meeting of the project will be held in Lille (August 23-31: see <http://www.igcp503.org/pdfs/Lille2.pdf>). All are welcome to join.

HEREDIA, SUSANA (Argentina). I am working on Ordovician conodonts from several sections of the Precordillera (Salagasta, Villicum, Cerro La Chilca, Las Chacritas). I am sharing this huge job with Matilde Beresi (Sponges, algae, microfacies) and the Phd student Ana Mestre. Also I am supervising a Phd student, Josefina Carlorosi, who is working on Lower Ordovician Conodonts from Northwestern Argentina. I am involved in a research program from CONICET for studying the Ordovician of the Sierra de Zenta (Jujuy Province). The research group: Guillermo Aceñolaza, Franco Tortelo, Marilyn Vergel, Lucia Araoz, Juan Pablo Milana and myself.

HINTS, OLLE (Estonia). I am continuing studies on Ordovician-Silurian jawed polychaetes (scolecodonts) and other organic-walled microfossils. In order to recover scolecodonts from China, a collaborative research with Li Jun (Nanjing) started in 2007. Together with Thomas Servais, Marco Vecoli (Lille) and Jaak Nõlvak (Tallinn) we are running a joint project to compare microfossil assemblages (emphasis on acritarchs, chitinozoans and scolecodonts) from Gondwanan realm and Baltica. Together with Jaak Nõlvak and Mairy Killing (Tallinn) we are currently studying micropalaeontology (chitinozoans, scolecodonts and conodonts) of Darriwilian limestones of Estonia. In collaboration with Mats E. Eriksson (Lund) several joint projects on Baltic Ordovician and Silurian scolecodonts are currently in progress. Ordovician and Silurian stratigraphy, especially what is related to the Baltic region, continue to be of my interest too.

KALJO, DIMITRI (Estonia). I am pleased to note that our team (V.Grytsenko, Kiev, T. Martma, M-A. Mõtus and myself) managed to publish the first part of our project about the Silurian of Podolia (see publications). I include this here for propaganda of isotopes in stratigraphy and our new journal name. The Est. J. Earth Sci. is freely available through Internet. All other projects noted last year are still in progress – restart of a lab needs much more time than that of a PC.

KRAFT, PETR (Czech Republic). I continue studies of Ordovician stratigraphy, graptolites and other fossils. I focused on early Darriwilian fauna in framework of a research project and exceptional fossil assemblage of Sandbian age. I have finished essential tests of a new model of the Prague Basin evolution which has been developed for the IGCP project no. 497 (especially in co-operation with J. Fryda and O. Lehnert).

LANDING, ED (USA). The focus of my current work is the sequence stratigraphy of the uppermost Cambrian through lower Middle Ordovician on the carbonate-dominated succession of the New York Promontory (eastern New York, western Vermont) and adjacent Ottawa aulocogen (adjacent southern Quebec and Ontario), as well as the relationship of maximum sea levels to expanded zones of strengthened upper slope anoxia in the Taconian allochthons, eastern North America. Ordovician conodonts, trilobites (with S. R. Westrop), and cephalopods (with B. Kroeger) are emphasized in this work.

LEFEBVRE, BERTRAND (France). I keep working on the systematics, palaeoecology, palaeobiogeography, and phylogeny of Early Palaeozoic echinoderms. I am currently working on new taxa (mostly solutes and stylophorans) from the Lower and Upper Ordovician of Morocco. In 2007, I have been supervising a MSc project on new solutes from the Lower Ordovician of central and eastern Anti-Atlas (Renaud Roch). In 2008, I will be supervising two Master students: one will be describing exquisitely preserved solutes from the Upper Ordovician of Morocco (Fleur Noailles), and the other one, new Ordovician crinoids, also from Morocco (Benjamin Franzin). The year 2007 was extremely busy for me, with my moving from Dijon to Lyon University (January-February), the editing of the two volumes of *Annales de Paléontologie* dedicated to Georges Ubags, and the final corrections of the thesis of my PhD student, Elise Nardin (she defended successfully her PhD on Early Palaeozoic blastozoan echinoderms on 14th December 2007, at Dijon University).

LOCH, JAMES D. (USA). I am currently working on description of 3 Symphysurina species from the Cambrian-Ordovician boundary interval in Utah and New Mexico with John Taylor. These appear to be short ranging taxa and may provided for more finely resolved correlations within the Symphysurina Zone. Field work in May should finally allow for completion of a manuscript on the trilobite faunas across the lower-Middle Ordovician boundary at Whiterock Canyon, Nevada.

LÖFGREN, ANITA (Sweden). I continue studying Early and Mid Ordovician conodonts, mainly from Sweden. Just now I look at conodonts from the Lower-Middle Ordovician boundary in Västergötland (with Stig M. Bergström, Ohio), and continue

cooperation with Viive Viira, Tallinn, on comparison between Estonian and Swedish conodont faunas.

MALETZ, JÖRG (USA). I am working on a number of projects, most consistently at the moment on the planned Graptolite Treatise, where I am responsible for the taxonomy of the Dichograptacea, Glossograptacea and the dendroid orders with Edsel Brussa, Blanca Toro and Yuandong Zhang. First results should be available at the workshop of the Graptolite Working Group this summer in Prague. I am working with Blanca Toro on the taxonomy and biostratigraphy of the deflexed didmograptids of the genus *Baltograptus* and with Edsel Brussa, Heinrich Bahlburg and two students on graptolites and biostratigraphy in Peru. Another project is about Middle Ordovician graptolite faunas and biostratigraphy of Scandinavia with Sven Egenhoff (sedimentology Norway) and Dan Goldman, based on material from Norway, Sweden and Estonia. In my spare-time I am interested in retiolitid graptolites and I started working on material collected by Hermann Jaeger and preserved in the Museum für Naturkunde (Berlin, Germany). Since the Nanjing meeting last summer I got radiolarian material from Spain (from Juan Carlos Gutierrez-Marco) and Argentina (from Guillermo Albanesi) that help me to go on with my work on Ordovician radiolarian biostratigraphy and taxonomy. I am in the process to finish taxonomic work on the Table Head and Cow Head radiolarians I have from my own collections. Oliver Lehnert just promised new material of pyritized radiolarians from Spitsbergen. Thus, it seems I am more and more concentrating on this microfossil business, but you will still see new graptolite papers.

MÄNNIK, PEEP (Estonia). I am actively working on evolution, taxonomy and palaeoecology of conodonts, conodont-based high-resolution stratigraphy, bioevents and palaeogeography. I am also interested in sequence stratigraphy and evolution of sedimentary basins. Starting from this year, I am busy with a 4-year project “Upper Ordovician–Lower Silurian conodont biostratigraphy in stratigraphic sequences” (financed by the Estonian Science Foundation). Also, joint studies together with colleagues from Estonia, Russia, Sweden, U.K. and USA on evolution and high-resolution stratigraphy of the Early Palaeozoic sedimentary basins on Baltica and Siberia palaeocontinents are going on.

MCCRACKEN, SANDY (ALEXANDER D.) (Canada). I continue to work on Middle to Upper Ordovician, Silurian, Devonian, and Carboniferous conodonts from various locations in Canada. Much of my time is now assigned to science subdivision and lab management.

MCLAUGHLIN, PATRICK (USA). Over the last year I have been working on Upper Ordovician K-bentonite chemostratigraphy with Bryan Sell, a doctoral student at the University of Syracuse (New York State). Our project looks at K-bentonites from the Hagan K-

bentonite cluster found in the basal Salona Formation of Pennsylvania (USA) in order to assess the utility of using apatite chemical fingerprinting in areas proximal to the volcanic source area. Emerson et al. (2004) showed that apatites from four K-bentonites collected from this interval in the distal cratonic interior had distinct, well defined signatures that indicated four separate eruption events. By contrast our preliminary results, taken from 42 K-bentonite samples from five localities, shows great variability in apatite chemistry suggesting these beds represent 1) several spatially discontinuous thin ash layers and 2) composites representing multiple eruptions. Despite these complications, one eruption event (out of at least 10) does appear to have a unique signature that can be correlated between exposures. These preliminary results suggest that researchers wishing to implement apatite fingerprinting of K-bentonites in areas proximal to the source area exercise caution when making interpretations and analyze at least 20-50 grains per sample.

MELCHIN, MICHAEL (Canada). I am currently working on several projects related to graptolite biostratigraphy and biodiversity through the Late Ordovician and Early Silurian, particularly in North America, Europe, and China. My graduate student, Jason Loxton, is completing a study of biodiversity dynamics through the late Katian to early Rhuddanian in Northern Yukon. I am collaborating with Charles Mitchell, David Sheets, Petr Storch and Stan Finney, on the study of Late Ordovician – Early Silurian faunas in Nevada and Bohemia, and Fan Junxuan and Chen Xu (Nanjing) on the study of Rhuddanian-Aeronian graptolites from South China. We are also working together with Chris Holmden and others on the stratigraphy and carbon isotope chemostratigraphy of the same successions. Diane Dawson recently completed her MSc thesis on the phylogeny of some early monograptids and I am continuing phylogenetic studies on other taxonomic groups.

MERGL, MICHAL (Czech Rep.). I'm actively working on discinoid brachiopods of Ordovician to Devonian age, and continuously of brachiopod faunas of the Lower Ordovician of Bohemia; genera *Poramborthis* and *Kvania* are under revision.

MIKULÁŠ, RADEK (Czech Rep.). I'm working on the assessment of the rich ichnologic material obtained during the past five years in the Erelly to Upper Ordovician of the St Petersburg region (Russia) and in the Igraka-Norilsk structural - facial zone of the Siberian Platform (with Andrei Dronov, A.V. Kanygin, N.V. Sennikov and others). From the Barrandian area (Czech Republic), few minor topics concern taphonomy of certain Ordovician ichno-assemblages and systematic ichnology of particular finds of ichnofossils.

NARDIN, ELISE (France). I am working on primitive echinoderms of the Early Paleozoic times. My research focuses on four axes: A) the phylogeny of

blastozoans and their relationships with the crinoids, B) the relation between the phylogenetic signal and the biodiversity fluctuations of blastozoans, C) the blastozoan paleobiogeography, and D) the impact of the Substrate Revolution and the Agronomic revolution on the initial diversification of the Cambrian primitive echinoderms.

NAVAS-PAREJO, PILAR (Spain). I am working on my PhD thesis, Paleozoic stratigraphy and conodont biostratigraphy of the Malaguide Complex (Betic Cordillera, SE Spain), and related Mediterranean domains.

NICOLL, ROBERT S. (Australia). I am working on some Late Cambrian and Early Ordovician conodont faunas from northern and western Australia. I have semi-unretired and am working part-time for Geoscience Australia, but not on conodont studies. That work I continue to do under my ANU banner.

ORTEGA, GLADYS (Argentina). I am studying Darriwilian to Katian graptolite faunas from the Argentine Precordillera (Los Azules, Las Plantas, Sierra de La Invernada, Empozada and Gualcamayo formations). Two papers about the graptolite and conodont assemblages from the La Invernada Range and the San Isidro creek, Precordillera, were recently published. I continue working on graptolites from the Tremadocian and Floian from the Eastern Cordillera, Famatina System and Precordillera. A paper about the early Paleozoic conodont and graptolite biozones, coauthored with G.L. Albanesi and F. Zeballo, from the Eastern Cordillera was submitted to the Congreso Geológico Argentino.

OWEN, ALAN (UK). My most recent and current work includes collaboration with David Bruton (Oslo) on a deep-water Upper Ordovician trilobite fauna from Maine. David and I also collaborated with Dave Harper (Copenhagen) on a presentation on Ordovician island faunas at the Lyell Meeting at the Geological Society of London which will be published in the volume arising from the meeting. A paper with Dave Harper and former PhD student Rachel Heath on an early Silurian recovery fauna from the Oslo region is now in press after many years' gestation. Other work within IGCP 503 'Ordovician Palaeogeography and Palaeoclimate' included a presentation on trinucleids at the Ordovician Conference in Nanjing and whilst there, discussion with Chinese colleagues and David Holloway (Melbourne) resulted in a collaborative project aimed at resolving the vexing taxonomic problems surrounding the late Ordovician trilobites *Dalmanitina* and *Mucronaspis*. A thematic set of papers arising from the highly successful IGCP 503 Annual Meeting that I held here in Glasgow in 2006 has now been edited and is in press in *Lethaia*. Joint supervision of PhD student Tom Challands with Howard Armstrong in Durham and staff at the British Geological Survey continues and a new research student, Clare Torney, has started a PhD on the ultrastructure, chemistry and crystallography of trilobite eyes in conjunction with co-supervision by

my colleague Martin Lee here at Glasgow and a physicist, Rob Martin at Strathclyde University.

PARIS, FLORENTIN (France). I continue my investigations on: 1) the sea level changes in northern Gondwana regions during the Early Palaeozoic and especially during the Ordovician and 2) the $\delta^{13}\text{C}_{\text{org}}$ excursions during the Late Ordovician and Early Silurian in northern Gondwana regions. Blaise Videt has achieved his work on the Ordovician sea level changes and is now investigating the Silurian and the Devonian (contract with Total S.A. oil company). Additional work is, however, carried out on the Ordovician sequences of western Brittany and Sardinia (collaboration with A. Loi, A. Gorini and M.P. Dabard). The $\delta^{13}\text{C}_{\text{org}}$ variations recorded in Ordovician sequences from northern Gondwana sections (e.g. Algeria Sahara, Anti Atlas, in Morocco) are rather puzzling. Additional analytical investigations are strongly needed for comparing the bulk organic data, the sorted ones and the data on carbonates. High resolution biostratigraphic studies have been made on chitinozoans from Late Ordovician and Llandovery shallow core samples from Saudi Arabia (CIMP/ARAMCO projects), and from Ordovician subsurface samples from Oman.

POPOV, LEONID E. (UK). I am currently working on the Ordovician faunas and biostratigraphy of Kazakhstan, Central Asia Iran in co-operation with Mansoureh Ghobadi Pour and Irina Kim. I also continue to work on general aspects of the Palaeozoic brachiopod systematics, biogeography and palaeoecology.

REPETSKI, JOHN E. (USA). I am continuing to work chiefly on Ordovician (and Cambrian) conodonts, from the USA and elsewhere, for biostratigraphy, biogeography, systematics, and thermal maturation analyses. Most of the projects are related to USGS mapping and resource assessment studies (karst terrains; groundwater resources and quality; hydrocarbon and mineral resources; structural geology). Other work involves dating and analysing thermal history of several meteor impact structures using conodonts, some paleoclimate work, and phosphatic problematica (e.g., larval arthropods and embryos). Much of the work is being done with many good colleagues.

RONG, JIAYU (China). I have been studying the Late Ordovician and Silurian brachiopods from some parts of China. Recently, papers were finished or submitted with Jin Jisuo, Zhan Rebin and Jan Bertgstrom on a Hirnantian species of *Stegerhynchus* from the Borensult Fauna in Sweden; with Tony Wright (Wright and Rong) on a new genus in mid Ashgill of Sweden which is similar to *Brevilamnuella*; with Robin Cocks (Cocks and Rong) on a survey of Rhuddanian brachiopod genera worldwide to determine how and where they picked up after the end Ordovician mass extinction; and with Huang

Bing, Zhan Renbin, and David Harper on the latest Ordovician deep water brachiopod assemblage from East China. A paper has been preparing on a lower Rhuddanian brachiopod fauna from Zhejiang and Jiangxi provinces, East China to see survival aspects of brachiopods after the end Ordovician extinction.

RUSHTON, ADRIAN (UK). I am working on Cambrian trilobites and on correlation problems, and has more or less retired from work on Ordovician fossils. The paper given below is of more than local significance because it documents the basal Middle Ordovician (Castlemainian, Ca1) graptolite *Isograptus victoriae lunatus* from strata just above a rhyolitic rock that yielded an age of 373 Ma, constituting a useful age-constraint. There is some new material of the Tremadocian aglaspid arthropod *Tremaglaspis* Fortey & Rushton that needs to be worked up, and there are a few graptolitic things he feels he ought to do before putting a dust-cover over his microscope.

SANSOM, IVAN (UK). Current research is focussing on Ordovician vertebrates from Gondwana and Laurentia, with particular emphasis on new faunas from Australia, the Arabian Peninsula and South America.

SERVAIS, THOMAS (France). I continue working on Ordovician (Cambrian to Devonian) organic-walled microphytoplankton and enigmatic calcareous (possibly planktonic) microfossils. The major aim of the investigations are beside biostratigraphical, palaeobiogeographical and palaeoecological application the integration of the datasets of Palaeozoic diversity trends of the acritarchs in the context of the evolution of the food webs in the marine ecosystems. Collaborations are currently in progress with colleagues from Argentina (Claudia Rubinstein), Estonia (Olle Hints, Jaak Nolvak), Sweden (Asa Wallinn), China (Yan Kui, Li Jun) and Germany (Axel Munnecke, Alex Nützel). At Lille, two PhD projects are supervised on the acritarchs of the Ordovician-Silurian boundary (Aurélien Delabroye, co-supervised with Marco Vecoli) and on the CO₂ and climate evolution in the Late Ordovician (Vincent Lefebvre, co-supervised with Louis François, Liège). This year I organise in August the final meeting (Closing Meeting) of IGCP 503 "Ordovician palaeogeography and palaeoclimate", on which several special issues of scientific journals and/or book series will be based.

SHERWIN, LAWRENCE (USA). Despite having retired several years ago after reaching the official retiring age I continue to be employed by the Geological Survey for essential palaeontological and stratigraphic services. I'm actively working on writing Ordovician stratigraphy as part of the Geological Survey's geological mapping program. When the current Goulburn 1:250 000 geological map is finished I will resume work on the relevant mid-late Ordovician graptolite faunas.

ŠTORCH, PETR (Czech Rep.). I am working mostly on Silurian graptolite faunas and stratigraphy. Since

late 2006, however, I have been engaged in a monographic study on Katian and Hirnantian graptolites of Nevada as a Fulbright grantee at California State University, Long Beach (a joint project with Stan Finney, Chuck Mitchell and Mike Melchin). The project is in advanced progress.

STOUGE, SVEND (Denmark). I am continuing working on conodont biostratigraphy and systematics from the Yichang area, Hubei Province, China together with Dr. Li, Yichang Institute, Yichang, China. A joint paper with colleagues from China on Middle to Upper Ordovician conodonts from the Tarim Basin is in preparation. Joint papers dealing with Early to Middle Ordovician stratigraphy and conodonts from Baltoscandinavia and South China are also in progress. Work on Late Ordovician to Early Silurian conodont biodiversification and the response of the conodont communities to eustatic change is also in progress; this work is made together with J.A. Rasmussen and is based on material recently collected from North Greenland. Another target is Middle Ordovician conodonts from Northeast Greenland, which is in progress. Also, I'm working on the impact of meteorites on faunal diversification in the Darriwilian together with collaborators from Sweden, Denmark, USA and China (paper published January, 2008).

TRELA, WIESLAW (Poland). I'm actively working on sedimentology of the Ordovician succession in the northern Holy Cross Mountains (central Poland) and its relation to sea-level changes. I'm also focusing on the Llandovery black shells and cherts in the Holy Cross Mts. and paleoceanographic controls on their deposition.

TURNER, SUSAN (Australia). I am in the process of describing Ordovician thelodont scales from Canada and preparing a Cambrian-Ordovician database with Alain Blicek. With colleagues I have been preparing a celebration of the work of Drs Elga Mark-Kurik and Valentina Karatajute-Talimaa, for a talk given at the joint 10th Early/Lower Vertebrates: IGCP 491 Symposium in Uppsala, last August 2007. A manuscript has been submitted to the symposium volume: Schultze, H.-P., Turner, S. and Grigelis, A. Great Northern Researchers: Discoverers of the earliest Palaeozoic vertebrates (AZ-01-2008-0020) Acta Zoologica.

VANDENBROUCKE, THIJS (Belgium). The main objective of my current postdoc project is to examine the potential of several methods for ground-truthing Ordovician climate models. Our main focus remains on trying to use the distribution patterns of planktonic chitinozoans and graptolites to ground truth Ordovician climate model (GCM) predictions of ocean state. Several well-defined timeslices in the Upper Ordovician (the *gracilis* biozone, GICE, BODA, HICE) are currently under scrutiny and our first results have been presented at two meetings in December 2007 (AGU in San Francisco & Pal. Ass.

in Uppsala). In addition, the potential of a number of geochemical methods to reconstruct sea water properties are being evaluated. The research is conducted at the Universities of Leicester (UK), Durham (UK) and Ghent (Belgium), in close cooperation with Mark Williams (University of Leicester), Howard Armstrong (Durham University), Jan Zalasiewicz (University of Leicester) and Jacques Verniers (Ghent University). We also have a couple of irons in the fire looking to solve some outstanding biostratigraphical problems, including the correlation difficulties at and around the *linearis* biozone level: this includes a detailed study of the chitinozoans through the graptolitic Bornholm succession (Denmark, together with Arne Nielsen), the Whitehouse Group on the Girvan Foreshore and inland sections (Scotland, together with Keith Ingham), and the Welsh Ffrongoch section (together with the BGS Welsh mapping crew). Jan Hennissen and myself are finalising our chitinozoan work on the Chinese Dawangou section and hope to publish this soon. 2008 should see the publication of a series of papers dealing with results of the research during my PhD, amongst others an overview of the new Upper Ordovician chitinozoan biozonation in Great Britain (*Lethaia*), papers on the historical type Caradoc (*Geol. Mag.*) and Hirnantian (*Geol. Jl.*), and a monograph of Palaeontographical Society formally describing the species used in the new biostratigraphic schemes. Next to the Ordovician projects, I am currently involved in several projects dealing with the Silurian System. Jeremy Davies (BGS), Richard Waters (National Museum of Wales), Stewart Molyneux (BGS), Mark Williams (University of Leicester), Jan Zalasiewicz (University of Leicester), Jacques Verniers (Ghent University), Tom Challands (Durham University) and myself are attempting a critical but constructive revision of the stratigraphy and facies architecture of the Llandovery type area in South Wales, as part of a 2 year (2007-2009) BGS project. Together with Olle Hints (Technical University of Tallinn) and Axel Munnecke (Erlangen University), I am trying to evaluate the differences in carbon isotope values between several groups of palynomorphs, using the Ireviken Event on the Gotland Isle as a test case.

VECOLI, MARCO (France). My research focuses on Ordovician palynomorphs (cryptospores, miospores, acritarchs, and chitinozoans) from different areas of the world with application to biostratigraphy, palaeo-environmental and palaeogeographical reconstructions, as well as to palaeobiology of Palaeozoic early terrestrial vegetation and oceanic microplankton. Ongoing research project are: 1) Study of Cambrian-Ordovician record of non-marine palynomorphs in the subsurface of North Africa (Algeria, Libya, and Tunisia). The non-marine microfossils are analyzed in order to determine their use as palaeoenvironmental indicators as well as for their palaeobiological value (transition from marine to freshwater algae and

appearance of land plant cryptospores). This study involves biomarker analysis of structured and unstructured organic matter from a variety of palaeoenvironments. 2) High-resolution palynostratigraphy of North Africa and adjacent regions, in collaboration with Bindra Thusu (University College, London) and Florentin Paris (CNRS, University of Rennes, France). 3) Ordovician -Silurian boundary at Anticosti Island, Québec, Canada. Following a field trip on Anticosti Island organized with the colleagues Paul Copper (formerly at Laurentian University, Ontario, Canada), Axel Munnecke and Michael Joachismki (University of Erlangen, Germany) in 2006, a detailed palynological study coupled to geochemical analyses (carbon and oxygen isotopes) is currently in progress. This study concerns two sections, one in the eastern side and one in the western side of Anticosti Island which were sampled in high detail, and is the subject of a PhD Thesis currently conducted by Aurélien Delabroye at the University of Lille, France under my supervision and co-supervision of Thomas Servais. New results are emerging regarding the chronostratigraphy of the O-S boundary formations at Anticosti, and on the impact of the end-Ordovician glaciation on microphytoplankton communities. 4) Ordovician of Iran. This work in collaboration with Dr. Ghavidel-syooki of the Iranian National Oil Company aims at a high-resolution palynostratigraphic dating of the Early Palaeozoic rock formation in Iran and to the establishment of a palynozonation which will serve as reference for future deep drilling programs for oil exploration. This research concerns acritarchs as well as chitinozoans. 5) Ordovician acritarchs from Argentina and comparison with coeval assemblages of North Africa. This project is conducted in collaboration with Claudia Rubinstein (Unidad de Paleopalínología CRICYT, Mendoza, Argentina), in the framework of a bilateral French-Argentinian funding programme (ECOS-Sud; project leader for the French side, Thomas Servais, CNRS, University of Lille, France). We have been studying Middle to Late Ordovician (Hirnantian) acritarch assemblages from the Central Andean Basin, and we are now preparing some papers describing the assemblages and comparing them with coeval assemblages from other parts of Gondwana. 6) Acritarch biostratigraphy and palaeoecology of Middle Ordovician of Estonia. In collaboration with the palynology team of the Institute of Geology at Tallin University of Technology (Drs. Olle Hints and Jaak Nolvak), and Thomas Servais (CNRS, University of Lille, France) we started the study of the acritarch content of the Middle Ordovician sediments from the Pakri section, from northwestern Estonia. Acritarch diversity and abundance data will be compared to those of the chitinozoans and scolecodont and with the carbon isotope curve.

VIIRA, VIIVE (Estonia). I continue studies on Ordovician and Upper Silurian conodonts of Estonia. My research in 2007 was focused on conodonts from Lower-Middle Ordovician and Middle-Upper Ordovician boundary beds, especially on biostratigraphy of conodonts.

YAN, KUI (China). I am actively working on Ordovician acritarchs in South China. I gained the PhD degree this year, and obtain a job as assistant researcher in Nanjing. In June, after oral defense for my PhD degree, I participated the 10th ISOS, the 3rd ISSS, and the 4th Annual meeting of the IGCP 503 Project in Nanjing and followed a post-conference field trip in Tongzi and Yichang in South China. In December, I went to northeast Yunnan province for field work and to collect samples for acritarchs.

YOUNG, GRAHAM (Canada). I am continuing to work on Paleozoic paleoecology and on the diversity of Ordovician Cnidaria. I am collaborating with Bob Elias, David Rudkin, Godfrey Nowlan and others to assess paleoenvironments and biotas in the Ordovician rocks of central and northern Manitoba. Graduate student Lori Stewart (co-supervised with Bob Elias at the University of Manitoba) is studying paleoenvironmental change in the interval leading up to the Ordovician – Silurian boundary. Postdoctoral fellow Sean Robson is preparing a manuscript on Late Ordovician conularids from several locations in Manitoba. Two manuscripts on the biotas of Late Ordovician Lagerstätten were published recently, and further papers are in preparation. I am continuing to carry out detailed studies of Ordovician cnidarian medusae.

ZHAN, RENBIN (China). I am actively working on the Great Ordovician biodiversification (particularly the Ordovician Radiation) based on the data collected in South China during these couple of years. Conducting case studies on the central part of the Yangtze Platform for several years, we now have some new ideas about the taxonomical and paleoecological patterns of the Ordovician Radiation (see our recent publications). We are now particularly interested in the materials from the marginal platform, near shore localities and the Jiangnan Slope. We are also seeking interested international colleagues to do some collaborations on the study of the controlling factors of the Ordovician Radiation.

ZHANG, YUANDONG (China). I continue my work on: 1) The Ordovician Bio-radiation—the response of graptolites in South China and its comparison with other major regions across the world. This is a part of the NSFC major project on the “Palaeontological Evidence of Ordovician Bioradiation in South China”, which I serve as the leader. In the project, experts of many key fossil clades in Ordovician, such as graptolites, brachiopods, trilobites, acritarchs, nautiloids, bryozoans and bivalves, are involved. My recent concentration is on the palaeogeographic distribution of the early and mid Ordovician

graptolites in South China, and the phylogenetic origination of major clades. 2) The environmental background of Ordovician biotic radiation based on evidence from South China (cooperating with Axel Munnecke of Germany). In our joint field excursion in Feb.-March, 2007, we investigated many sections in the JCY area (Slope facies) and the Upper Yangtze Region (Platform) of South China, and collected systematically Carbon Isotope samples. 3) The divisions and correlations of the Ordovician rocks in China, a project sponsored by the SinoPec Co., in which we aim specifically at the refining correlation of Ordovician strata in the Middle to Upper Yangtze Region (SW China), and Tarim Region (Xinjiang) where Ordovician black shale has been believed to be the source rock of the abundant petroleum under exploration.

ZHEN, YONG YI (Australia). I am working on the Ordovician conodonts from New South Wales, Tasmania, New Zealand, and South China. In the last five years, I have also worked with Prof. Zhiyi Zhou (NIGP) as the co-editor of the book “Trilobite record of China”, which is now in press, and on several projects of trilobite biodiversities and biogeography.

ZHOU, ZHIYI (China). In collaboration with my colleagues Zhou Zhiqing, Zhen Yongyi, Samuel Turvey and Yuan Wenwei, several papers on the Chinese Ordovician trilobites and biofacies, and on the terminal Ordovician extinction and early Middle Ordovician radiation that took place in China have recently been published. Work continues on the Ordovician trilobites biofacies. Other current work includes studies on the Llanvirn-early Ashgill trilobite faunas of Pagoda facies from the Yangtze region (with Zhou Zhiqing) and on the trilobite-constrained Ordovician biogeography of China (with Zhen Yongyi). It is also worthwhile mentioning that researches involving a review of the previously established trilobite genera and faunal sequences, and a stratigraphic correlation of trilobite-bearing beds between different facies belts have been conducted since 1996 mainly by members of the Trilobite Section of our institute. Eventually, a monograph [Zhou Zhiyi and Zhen Yongyi (ed.): Trilobite Record of China] was finalized in the middle of 2007 and will be published by the Science Press (Beijing) soon. This volume deals with 1677 trilobite genera and subgenera that occur in the Palaeozoic rocks of China, and, after a critical revision, 1317 of them are considered as valid. All of the valid forms are listed with reference to their familial assignments, and chronostratigraphical and geological settings. Furthermore, based on the updated data of their temporal and spatial distribution, the Cambrian and Ordovician biogeography of China is outlined, and the familial and generic biodiversity changes through the 46 Palaeozoic stages and 71 Cambro-Ordovician time intervals (defined by biozones) in China are revealed.

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- Aceñolaza, F.G. and Esteban, S.B. 2007.** Black carbonates in the Ediacaran-Lower Cambrian outcrops in Northwest Argentina. EGU 2007 (European Geosciences Union – General Assembly) organic Carbon-rich marine sediments past, present and future-Oceans and climate feedbacks. Monográfica y Didáctica 46: 140.
- Aceñolaza, G.F. 2006.** The validity of *Nereites saltensis* (trace fossil) from the Puncoviscana Formation of NW Argentina (Ediacaran-Early Cambrian) In: Yang Q., Wang, Y. and Weldon, E. (Eds.), Ancient Life and Modern Approaches. University of Science and Technology of China Press. 235-237. Hefei, China.
- Aceñolaza, G.F. 2007.** Refining the chronology of the Seilacherian “Cruziana stratigraphy”: additional data from an outstanding outcrop in the Ordovician of Western Gondwana. 20th Colloquium on Latin American Earth Sciences, Kiel. Life from fossils to humans, 209.
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