

# **CZECH IGCP NATIONAL COMMITTEE**



## ***COMPREHENSIVE ANNUAL REPORT***

**2008**

Prague 2008



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## COMPREHENSIVE ANNUAL REPORT

2008

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*Date of submission of Report:* December 15<sup>th</sup>, 2008

*Signature of Chairman:* .....

## 1. Czech IGCP National Committee

*Chairman:* RNDr. Jan PAŠAVA, CSc.  
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## 2. Members of the Czech IGCP National Committee:

Ing. M. Eis (*Severočeské doly, a.s., Chomutov*), Dr. O. Fatka (*Faculty of Science, Charles University*), Dr. P. Havlíček (*Czech Geological Survey, Prague*), Dr. J. Hladil (*Geological Institute, Czech Academy of Sciences*), Dr. P. Kraft (*Faculty of Science, Charles University*), Dr. R. Mikuláš (*Geological Institute, Czech Academy of Sciences*), Dr. S. Opluštil (*Faculty of Science, Charles University*), Dr. J. Pašava (*Czech Geological Survey, Prague*), Ing. P. Skupien (*Technical University, Ostrava*), Dr. V. Šibrava (*emeritus - UNESCO*), Ing. P. Škoda (*Czech Commission for UNESCO*), Mgr. K. Verner (*Faculty of Science, Charles University / Czech Geological Survey*), Dr. A. Vymazalová (*Czech Geological Survey, Prague*), Dr. J. Zajíc (*Geological Institute, Czech Academy of Sciences*)

## 3. Number and title of projects in which the Czech Republic has participated:

### A/ Projects with project leaders from the Czech Republic:

**Project #497 - The Rheic Ocean: Its Origin, Evolution and Correlatives**  
**Project Leaders:** U. Linnemann (Germany), R. D. Nance (USA), M. de Wit (South Africa), E. Bozkurt (Turkey), P. Kraft (Czech Republic), F. Pereira (Portugal), R. A. Strachan (UK)  
**Czech Representative:** P. Kraft ([kraft@natur.cuni.cz](mailto:kraft@natur.cuni.cz))

### Activities in 2008:

The final conference and field meeting was organized in Frankfurt a/M in 2008. It was merged with the final meeting of the IGCP project no. 499, 20<sup>th</sup> International Senckenberg Conference and 2<sup>nd</sup> Geinitz Conference. This wide-topic meeting was attended by several Czech geologists

and paleontologists. Some of them came especially for the IGCP project 497 and presented talks on the Rheic Ocean-related studies:

Fatka, O., Mergl, M.: Origin and history of Perunica (Proterozoic – Devonian).

Kachlík, V., Pin, Ch.: Geochemistry and Sm-Nd systematics of the Devonian to Lower Carboniferous volcanics in the Moravo-Silesian Zone, Bohemian Massif and their geodynamic significance.

Kraft, P., Lehnert, O., Budil, P., Fatka, O., Kraft, J: Faunal colonisation during the early history of the Prague Basin.

V.Kachlík also actively attended important discussions on Variscan remnants of the Rheic Ocean margin during the field meeting and excursion.

### **List of publications:**

Sláma, J., Dunkley, D.J., Kachlík, V. Kusiak, M. (2008): Transition from island-arc to passive margin setting on the continental margin of Gondwana: U-Pb zircon dating of neoproterozoic metaconglomerates from the SE margin of the Teplá-Barandian Unit, Bohemian Massif. Tectonophysics. DOI 10.1016/J.tecto.2008.03.05.

The history and provenance of some marginal block is discussed in:

Štorch, P., Kraft, P. (in print): Graptolite assemblages and stratigraphy of the lower Silurian Mrákotín Formation, Hlinsko Zone, NE interior of the Bohemian Massif (Czech Republic). Bulletin of Geosciences, 83(4).

The key proceeding “Linnemann, U., Nance R.D., Kraft, P., Zulauf, G. (eds.): The evolution of the Rheic Ocean: From Avalonian-Cadomian active margin to Alleghenian-Variscan collision“, published as The Geological Society of America Special Paper 423 was issued at the very end of 2007. Thus the main reactions including those on contributions of the Czech authors and co-authors, came during 2008.

### **Activities planned in 2009:**

A great progress in the study of the geological, geotectonic and paleogeographic aspects of the Bohemian Massif and its parts was made during five years in the framework of the project no. 497. Modern models of processes related to the life cycles of the Rheic Ocean in some units were assembled. New co-operations were established. This altogether represents a strong potential for future researches.

A suggestion to extend the project no. 497 for one year was concluded during the final discussion in Frankfurt a/M. Depending on a final decision of the IGCP Board events for 2009 will be planned in detail. After preliminary offer the field meeting in Spain was proposed. Details are available at <http://www.snsd.de/igcp497/>

### **C/ Projects with active working groups in the Czech Republic:**

#### **Project # 486 - Au-Ag-Telluride-Selenide Deposits**

**Project leaders: N.J. Cook (Norway), K.Kojonen (Finland)**

**Czech Representative: A. Vymazalová ([anna.vymazalova@geology.cz](mailto:anna.vymazalova@geology.cz))**

The project was on O.E.T. in 2008 and the final meeting was held at the 33<sup>rd</sup> IGC in Oslo, in August 2008. The project brought successful collaboration, established cooperation with other working groups from different countries and opened some new tasks for further research. The

research activities of the Czech working group will still continue and will be focused on experimental studies of systems containing PGE (e.g. Pd-Pb-Te, Au-Pd, Au-Pd-Hg).

**List of publications:**

- Vymazalová A., Laufek F., Drábek M., Haloda J., Sidorinová T. (submitted): PAŠAVAITE, Pd<sub>3</sub>Pb<sub>2</sub>Te<sub>2</sub>, a new platinum-group mineral species from Noril'sk-Talnakh Ni-Cu camp, Russia. *Can Mineralogist*.
- Laufek, F., Vymazalová, A., Navrátil, J., Drábek, M., Plášil, J., Plecháček, T. (in print): Synthesis and crystal structure of PdSnTe. *J Alloys Compounds*.
- Vymazalová, A., Drábek, M., Laufek, F. (2008): A new Pd<sub>3</sub>Pb<sub>2</sub>Te<sub>2</sub> phase and its stable assemblages - Experimental approach. 33<sup>rd</sup> International Geological Congress, Abstract CD-ROM, X-CD Technologies. Oslo, Norway
- Cabral, A.R., Tupinambá, M., Lehmann, B., Kwitko-Ribeiro, R., Vymazalová, A. (2008): Arborescent palladiferous gold and empirical Au<sub>2</sub>Pd and Au<sub>3</sub>Pd in alluvium from southern Serra do Espinhaço, Brazil. *Neues Jahrbuch für Mineralogie. Abhandlungen* 184, 3, 329-336.

**Project 491 - Middle Palaeozoic Vertebrate Biogeography, Palaeogeography and Climate**

**Project leaders: M. Zhu (P.R. China), G. Young (Australia)**

**Czech Representative: J. Zajíc ([zajic@gli.cas.cz](mailto:zajic@gli.cas.cz))**

**Activities in 2008:**

\* The comparative collections of fossil non-marine Upper Carboniferous and Lower Permian vertebrates were studied in the Geologische Bundesanstalt Wien, Museum für Naturkunde der Humboldt Universität Berlin, the West-Bohemian Museum Plzeň and in the National Museum Praha.

\* The new extensive and wide-ranging list of all non-marine Permo-Carboniferous fauna and fossiliferous localities of the Czech Republic (apart from the paralic Upper Silesian Basin) was finished and published by Stanislav Štamberg and Jaroslav Zajíc in the form of a book.

\* The subsequent project conference “5th Symposium on Permo-Carboniferous Faunas” was organized by Stanislav Štamberg and Jaroslav Zajíc in Hradec Králové (July 7-11, 2008). The one-day workshop “*Interpretation of Marine and Freshwater Environments in Carboniferous and Permian Deposits*” was included. Two-day field excursion was conducted into the Krkonoše Piedmont Basin and the Boskovice Basin. 26 talks and 5 posters (34 abstracts) were presented. 32 participants from 8 countries (Australia, Canada, Czech Republic, France, Germany, Italy, Slovakia, and United Kingdom) attended this meeting. The conference was supported by the Czech IGCP NC.

\* Two identical official web pages of the symposium were built: (<http://www.gli.cas.cz/shk/SymposiumHK.htm>) and (<http://www.gli.cas.cz/shk/SymposiumHK.htm>).

\* First (chronologically) oral communication was presented at the “11<sup>th</sup> Coal Geology Conference Prague 2004” in Prague:

Šimůnek Z., Zajíc J., Drábková J. (2008): Biota of the Líně Formation (Stephanian C), mode of preservation and its palaeoecological interpretation.

Other oral communications were presented at the “5<sup>th</sup> Symposium on Permo-Carboniferous Faunas” in Hradec Králové:

Lojka R., Drábková J., Zajíc J., Franců J., Sýkorová I., Grygar T. (2008): Environmental response to climatically driven lake-level fluctuations: record from Stephanian B freshwater reservoir of eastern tropical Pangea (Mšec Member, Kladno-Rakovník Basin, Central Bohemia).

Štamberg S., Zajíc Z. (2008): Carboniferous and Permian faunas and their occurrence in the limnic basins of the Czech Republic.

Zajíc J. (2008): The main Late Carboniferous and Early Permian lake fish communities of the Czech Republic.

Zajíc J. (2008): The limnic origin of majority of the Permo-Carboniferous basins of the Bohemian Massif.

Zajíc J. (2008): Czech and Moravian Permian acanthodians. In: S. Štamberg, J. Zajíc (eds.) Faunas and palaeoenvironments of the Late Palaeozoic, 56. Hradec Králové.

**List of publications:**

Štamberg S., Zajíc J. (2008): Carboniferous and Permian faunas and their occurrence in the limnic basins of the Czech Republic. Muzeum východních Čech v Hradci Králové, 1-224. Hradec Králové.

Štamberg S., Zajíc J. (eds.) (2008): Faunas and palaeoenvironments of the Late Palaeozoic. Special Publication to 5th Symposium on Permo-Carboniferous Faunas. Museum of Eastern Bohemia in Hradec Králové, 1-80. Hradec Králové.

**Project 499 – Evolution of Ecosystems and Climate in the Devonian**

**Project Leaders: P. Konigshof (Germany), J. Lazauskiene (Lithuania), E. Schindler (Germany), V. Wilde (Germany), N. Yalcin (Turkey)**

**Czech Correspondent: O. Fatka ([fatka@natur.cuni.cz](mailto:fatka@natur.cuni.cz))**

In this year Czech scientists took part in the following international conferences where they presented the following contributions:

- (1) Field workshop 2008 IGCP 499-UNESCO "Devonian Land-Sea Interaction, Evolution of Ecosystems and Climate" (DEVEC) organized by the Libyan Petroleum Institute, Tripoli (Libya), April 2008.

Two oral presentations and one abstract were offered:

Koptikova, L., Hladil, J., Slavik, L., Frana, J., Vacek, F. (2008): Evidence of a significant change between Lochkovian and Pragian: detailed lithological, geophysical, geochemical and mineralogical aspects (Pozary 3 section in Prague Synform). Field workshop 2008 IGCP 499-UNESCO "Devonian Land-Sea Interaction, Evolution of Ecosystems and Climate" (DEVEC), 23.4. - 30.4. 2008, Libyan Petroleum Institute, Tripoli, Libya. Abstracts, 10-14. Tripoli.

Slavik, L., Carls, P., Valenzuela-Rios, J., Koptikova, L., Hladil, J., Vacek, F. (2008): Proposal of detailed biostratigraphic subdivision of the Lochkovian in the Prague Synform. Field workshop 2008 IGCP 499-UNESCO "Devonian Land-Sea Interaction, Evolution of Ecosystems and Climate" (DEVEC), 23.4. - 30.4. 2008, Libyan Petroleum Institute, Tripoli, Libya. Abstracts, 15-19. Tripoli.

- (2) SEPM Research Conference, Kilkee (Ireland), June 2008.

One oral presentation and one abstract were offered:

Babek, O., Hladil, J., Chlachula, J., Koptikova, L. (2008): Correlation potential of spectral reflectance logs compared to gamma-ray and magnetic susceptibility. 2008 SEPM Research Conference, 22.6. - 28.6. 2008, Society for Sedimentary Geology, Kilkee, Ireland. Outcrops Revitalized: Tools, Techniques and Applications (Ed.: Martinsen, O.J., Sullivan, M., Pulham, A., Haughton, P.), 8. Kilkee.

(3) International Meeting of Young Researchers in Structural Geology and Tectonics, YORSGET, Oviedo (Spain), July 2008.

One oral presentation and extended abstract were offered:

Grabowski, J., Babek, O., Hladil, J., Pruner, P., Schnabl, P., Werner, T., Gersl, M., Otava, J., (2008): Late Variscan remagnetization of Devonian carbonates in the Moravo-Silesian Zone (Czech Republic): implications for dating tectonic deformations. – International Meeting of Young Researchers in Structural Geology and Tectonics, YORSGET, 1.7. - 3.7. 2008, University of Oviedo (Universidad de Oviedo). Programme and Extended Abstracts, 657-660. Oviedo.

(4) The 33<sup>rd</sup> International Geological Congress, International Union of Geological Sciences, Oslo (Norway), August 2008.

Two oral presentations and two abstracts were offered:

Hladil, J., Slavik, L., Koptikova, L., Schnabl, P., Vacek, F., Babek, O., Gersl, M. (2008): Relationships between magnetic susceptibility of limestones and sea level change ("direct relationship and major crises on the Earth"). The 33rd International Geological Congress, 6.8. - 14.8. 2008, International Union of Geological Sciences, Oslo. Abstract CD-ROM, HPS-01 General contributions to stratigraphy (Ed.: X-CD Technologies, Bjorlykke, A.), 1343596. Oslo.

Hladil, J., Slavik, L., Schnabl, P., Koptikova, L., Frana, J., Vacek, F., Babek, O. (2008): The gross environmental phenomenon of the classical Pragian stage ("hot lowstand"). The 33rd International Geological Congress, 6.8. - 14.8. 2008, International Union of Geological Sciences, Oslo. Abstract CD-ROM, HPF-01 General contributions to paleontology and historical geology, Part 1 (Ed.: X-CD Technologies, Bjorlykke, A.), 1343454. Oslo.

(5) 26<sup>th</sup> IAS Meeting on Sedimentology, International Association of Sedimentologists, Bochum (Germany), September 2008.

One oral presentation and one abstract were offered:

Boulvain, F., da Silva, A.C., Mabilie, C., Poulain, G., Hladil, J., Gersl, M., Koptikova, L., Schnabl, P. (2008): Magnetic susceptibility correlation of km-thick Eifelian–Frasnian sections (Belgium–Czech Republic). 26th IAS Meeting on Sedimentology, 1.9. - 3.9. 2008, International Association of Sedimentologists, Bochum. Abstracts and Field Trips, Schriftenreihe der Deutschen Gesellschaft für Geowissenschaften, Heft 58. (Eds.: Kunkel, C., Hahn, S., ten Veen, J., Rameil, N, Immenhauser, A.), 57. Bochum.

(6) International Conference Global Alignments of Lower Devonian Carbonate and Clastic Sequences, Uzbekistan, September 2008.

Two oral presentations and one abstract were offered:

Carls, P., Slavik, L., Valenzuela-Rios, J.I. (2008): Application to the SDS for revision of the Pragian-Emsian GSSP. International Conference Global Alignments of Lower Devonian Carbonate and Clastic Sequences, SDS and IGCP Project 499 joint field meeting, Paper (Lecture), 25.8. - 3.9. 2008, State Committee of the Republic of Uzbekistan on Geology, Kitab State Geological Reserve. Contributions (Ed.: Kim A.I., Salimova F.A., Meshchankina N.A.), 21-22.

Cejchan, P., Hladil, J., Galle, A. (2008): Growth patterns of stromatoporoids as possible indicators of broad palaeoenvironmental conditions. – International Conference Global

- Alignments of Lower Devonian Carbonate and Clastic Sequences, SDS and IGCP Project 499 joint field meeting, 25.8. - 3.9. 2008, State Committee of the Republic of Uzbekistan on Geology, Kitab State Geological Reserve. Special Print. Kitab.
- Hladil, J., Koptikova, L., Lisa, L., Cejchan, P., Ruzicka, M., Kulaviak, L., Adamovic, J., Janecka, J., Vecer, M., Drahos, J., Havlica, J. (2008): Stromatactis and stromatactum pattern formation in sediment: constraints from fluid mechanics and rheology and implications for environments, sedimentary architecture and cyclostratigraphy. International Conference Global Alignments of Lower Devonian Carbonate and Clastic Sequences, SDS and IGCP Project 499 joint field meeting, 25.8. - 3.9. 2008, State Committee of the Republic of Uzbekistan on Geology, Kitab State Geological Reserve. Contributions (Ed.: Kim, A.I., Salimova, F.A., Meshchankina, N.A.), 36-40. Kitab.
- Koptikova, L., Berkyova, S., Hladil, J., Slavik, L., Schnabl, P., Frana, J., Bohmova, V. (2008): Long-distance correlation of Basal Chotec Event sections using magnetic susceptibility (Barrandian –vs– Nevada) and lateral and vertical variations in fine-grained non-carbonate mineral phases. International Conference Global Alignments of Lower Devonian Carbonate and Clastic Sequences, SDS/IGCP Project 499 joint field meeting, 25.8. - 3.9. 2008, State Committee of the Republic of Uzbekistan on Geology and Resources, Kitab State Geological Reserve. Contributions (Ed.: Kim, A.I., Salimova, F.A., Meshchankina, N.A.), 60-62. Kitab.
- Slavik, L., Carls, P., Valenzuela-Rios, J., Hladil, J., Kalvoda, J., Koptikova, L. (2008): Pragian of the Prague Synform: stratigraphy, global correlation and boundary problems. International Conference Global Alignments of Lower Devonian Carbonate and Clastic Sequences, SDS and IGCP Project 499 joint field meeting, 25.8. - 3.9. 2008, State Committee of the Republic of Uzbekistan on Geology, Kitab State Geological Reserve. Contributions (Ed.: Kim, A.I., Salimova, F.A., Meshchankina, N.A.), 110-112. Kitab.
- (7) Subcommittee on Devonian Stratigraphy, Modena (Italy), September 2008.  
One oral presentation and one abstract were offered:
- Slavik, L., Hladil, J., Koptikova, L., Carls, P., Valenzuela-Rios, J. (2008): Integrated stratigraphy of the Lower Devonian in the Barrandian area, Czech Republic: An introduction of the project, preliminary data. SDS – Subcommittee on Devonian Stratigraphy Newsletter, 23, 71-74. Modena.
- (8) Czech-Polish-Slovak Paleontological Conference in Warszawa (Poland), September 2008.  
Two oral presentations and one abstract were offered:
- Galle, A., Hladil, J., Cejchan, P. (2008): Stromatoporoid growth periodicity investigated. 9th Czech-Polish-Slovak Paleontological Conference (9. Czesko-Polsko-Słowacka Konferencja Paleontologiczna), 10.10. - 11.10. 2008, Institute of Paleobiology, Polish Academy of Sciences. Special Print. Warszawa.
- Slavík, L. (2008): Conodont faunas from the Barrandian area - their potential for detail biostratigraphic subdivision of the Lower Devonian. 9th Paleontological Conference, Abstract (Poster), 10.10. - 11.10. 2008, Institut of Paleobiology, Polish Academy of Sciences, Warszawa. Abstracts (Ed.: Pisera A., Bitner M.A., Halamski A.T.), 86-87.
- (9) 20<sup>th</sup> International Senckenberg-Conference and 2<sup>nd</sup> Geinitz-Conference, Final Meeting of IGCP 497 and IGCP 499, Forschungsinstitut und Naturmuseum Senckenberg, Museum für Mineralogie und Geologie Dresden (Germany), September-October 2008.  
Five oral presentations and one abstract were offered:



- Fatka, O., Mergl, M. (2008): Origin and history of Perunica (Proterozoic - Devonian). In: Königshof, P., Linnemann, U. (eds.): From Gondwana and Laurussia to Pangea: Dynamics of oceans and supercontinents. 20th International Senckenberg-Conference and 2nd Geinitz-Conference. Final Meeting of IGCP 497 and IGCP 499. Abstracts and Programme. 43-45. Frankfurt am Main, Dresden.
- Hladil, J., Galle, A., Cejchan, P., Koptikova, L., Filip, J., Novotna, D., Ron, C., Vondrak, J., Strnad, L., Frana, J. (2008): The emerging potential of growth rhythms for definition of ocean-atmospheric circulation domains and possible implications for palaeogeography in orogenic belts. In: Königshof, P., Linnemann, U. (eds.): From Gondwana and Laurussia to Pangea: Dynamics of oceans and supercontinents. 20th International Senckenberg-Conference and 2nd Geinitz-Conference. Final Meeting of IGCP 497 and IGCP 499. Abstracts and Programme. 51-52. Frankfurt am Main, Dresden.
- Kraft, P., Lehnert, O., Budil, P., Fatka, O. & Kraft, J. (2008): Fauna colonisation during the early history of the Prague Basin. In: Königshof, P., Linnemann, U. (eds.): From Gondwana and Laurussia to Pangea: Dynamics of oceans and supercontinents. 20th International Senckenberg-Conference and 2nd Geinitz-Conference. Final Meeting of IGCP 497 and IGCP 499. Abstracts and Programme. 195-196. Frankfurt am Main, Dresden.
- Slavik, L., Koptikova, L., Hladil, J. (2008): Integrated stratigraphy of the Lower Devonian in the Prague Synform (Barrandian area, Czech Republic) – biostratigraphic refinements. In: Königshof, P., Linnemann, U. (eds.): From Gondwana and Laurussia to Pangea: Dynamics of oceans and supercontinents. 20th International Senckenberg-Conference and 2nd Geinitz-Conference. Final Meeting of IGCP 497 and IGCP 499. Abstracts and Programme. 133. Frankfurt am Main, Dresden.
- Suttner, T.J., Berkyova, S., Hubmann, B., Koptikova, L., Fryda, J., Hladil, J. (2008): The Basal Chotec Event in neritic sequences of the Prague Basin and the Graz Palaeozoic compared. In: Königshof, P., Linnemann, U. (eds.): From Gondwana and Laurussia to Pangea: Dynamics of oceans and supercontinents. 20th International Senckenberg-Conference and 2nd Geinitz-Conference. Final Meeting of IGCP 497 and IGCP 499. Abstracts and Programme. 232-234. Frankfurt am Main, Dresden.
- Machado, G., Hladil, J., Koptikova, L., Fonseca, P.E., Galle, A., Rocha, F.T. (2008): Middle Devonian reef fauna and co-occurring acritarchs from deformed volcanosedimentary sequences within the Beja Igneous Complex (SW Ossa-Morena Zone, Portugal). In: Königshof, P., Linnemann, U. (eds.): From Gondwana and Laurussia to Pangea: Dynamics of oceans and supercontinents. 20th International Senckenberg-Conference and 2nd Geinitz-Conference. Final Meeting of IGCP 497 and IGCP 499. Abstracts and Programme. 88-90. Frankfurt am Main, Dresden.

**Project 502 – Global comparison of volcanic-hosted massive sulphide districts: the controls on distribution and timing of VMS deposits.**

**Project Leaders: R. Allen (Sweden), F. Tornos (Spain), J.Peter (Canada), N.Çagatay (Turkey)**

**Czech Correspondent: J. Pašava ([jan.pasava@geology.cz](mailto:jan.pasava@geology.cz))**

**Activities in 2008:**

2008 was the fifth year of the project. This project aims to compare a number of the world's important VMS districts in order to define the key geological events that control the distribution

and timing of high-value VMS deposits; and thereby develop new criteria for locating these ore deposits. Czech participants (Jan Pašava and Anna Vymazalová from the Czech Geological Survey) continued research on the distribution of PGE in major VHMS deposits of the Iberian Pyrite Belt in Spain. New samples representing all major types of mineralizations were obtained from the Aquas Tenidas deposit (Iberian Pyrite Belt), where increased PGE values were detected by Pašava et al. (2007). The results of PGE determinations should be received by the end of this year. Delayed PGE data were received from new samples that represent the two only known high-temperature vent fields in the Indian Ocean (Kairei and Edmond vent – collaborative study with IFM-GEOMAR group). The results should be reported in 2009.

**List of publications:**

Pašava, J. - Vymazalová, A. - Tornos, F. (2007): PGE distribution in massive sulfide deposits of the Iberian Pyrite Belt. *Mineralium Deposita*. 42. 3. s.309-314. DOI 10.1007/s00126-006-0117-z.

**Project 503 – Ordovician Palaeogeography and Palaeoclimate**

**Project Leaders: T. Servais (France), D.A.T. Harper (Denmark), J. Li (China), A. Munnecke (Germany), W. Owen (U.K.), P.M. Sheehan (USA)**  
**Czech Representative: O.Fatka ([fatka@natur.cuni.cz](mailto:fatka@natur.cuni.cz))**

In this year Czech scientists took part in the following international conferences where they presented the following contributions:

(1) Fourth trilobite Conference organized by Museo Geominero Madrid (Spain) and Universidade de Trás-os-Montes e Alto Douro, Vila Real (Portugal) in Toledo (Spain) with excursion to Arouca (Portugal), June 2008.

Three oral and one poster presentations and four extended abstracts were offered:

Budil, P., Hörbinger, F., Fatka, O., Mergl, M. (2008): Dalmanitoid and acastoid trilobites and their evolution in the Prague Basin (Czech Republic). In: Rábano, I., Gozalo, R., García-Bellido, D. (eds.): *Advances in trilobite research, Cuadernos del Museo Geominero*, n. 9. Instituto Geológico y Minero de España, 67-72. Madrid. (oral presentation)

Fatka, O., Budil, P., Szabad, M., Bruthansová, J. (2008): Exoskeletal configurations of Cambrian and Ordovician agnostids: Examples from the Barrandian area of Czech Republic. In: Rábano, I., Gozalo, R., García-Bellido, D. (eds.): *Advances in trilobite research, Cuadernos del Museo Geominero*, n. 9. Instituto Geológico y Minero de España, 113-115. Madrid. (oral presentation)

Fatka, O., Szabad, M., Budil, P., Micka, V. (2008): Position of trilobites in Cambrian ecosystem: preliminary remarks from the Barrandian region (Czechia). In: Rábano, I., Gozalo, R., García-Bellido, D. (eds.): *Advances in trilobite research, Cuadernos del Museo Geominero*, n. 9. Instituto Geológico y Minero de España, 117-122. Madrid. (oral presentation)

Fatka, O., Budil, P., Rábano, I., Sá, A., Kraft, P., Linnemann, U., Marek, J., Drost, K. (2008): Ordovician trilobite genus *Hungioides* Kobayashi, 1936. In: Rábano, I., Gozalo, R., García-Bellido, D. (eds.): *Advances in trilobite research, Cuadernos del Museo Geominero*, n. 9. Instituto Geológico y Minero de España, 123-126. Madrid. (poster presentation)

(2) Meeting of German Palaeontological Association (78. Jahrestagung der Palaeontologischen Gesellschaft), Erlangen (Germany), September 2008.

One oral presentation and abstract were offered:

Fatka, O., Szabad, M., Šrámková, I. (2008): Direct evidence for carnivory of bradoriid arthropods on echinoderms (Cambrian, Příbram-Jince Basin, Czech Republic). Erlanger geologische Abhandlungen, Sonderband 6, 29. Erlangen. (abstract and oral presentation)

(3) Czech-Slovak-Polish Palaeontological Conference in Warsaw (Poland), September 2008.

One oral presentation and abstract were offered:

Fatka, O., Szabad, M., Šrámková, I. (2008): Direct evidence for carnivory of bradoriid arthropods on echinoderms in Cambrian of the Příbram-Jince Basin (Barrandian area, Czech Republic). Warszawa. (abstract and oral presentation)

(4) National Palaeontological workshop in honor of J. Kraft in Plzeň (Czech Republic), October 2008.

Two oral presentations and abstracts were offered:

Budil, P., Fatka, O. (2008): Exoskeletal structures in Ordovician trilobites of the Prague Basin (Czech Republic). In: Budil, P. (ed.): Palaeontological workshop in honor of J. Kraft, 13-16. Czech Geological Survey. Prague. (abstract and oral presentation)

Fatka, O., Budil, P., Szabad, M., Bruthansová, J. (2008): Exoskeletal configurations and malformations in Cambrian and Ordovician agnostids: (Barrandian area, Czech Republic). In: Budil, P. (ed.): Palaeontological workshop in honor of J. Kraft, 19-24. Czech Geological Survey. Prague. (abstract and oral presentation)

In the year 2008, O. Fatka was a member of the organizing committee of the International conference “*Development of Early Paleozoic biodiversity: role of biotic and abiotic factors, and event correlation*” Moscow (Russia), June 2008. Details available at <http://sarv.gi.ee/igcp503/>

### **Project 510 - A-type granites and related rocks through time**

**Project leaders: Roberto Dall’Agnol (Brazil), Carol D. Frost (USA), O. Tapani Rämö (Finland)**

**Czech representative: M. René ([rene@irms.cas.cz](mailto:rene@irms.cas.cz))**

#### **Activities in 2008:**

Some new studies of accessory minerals in topaz-bearing granites and their subvolcanic equivalents were performed (Krásno, Vysoký Kámen, Podlesí, Hora sv. Kateřiny). In P-high topaz granites (Horní Slavkov–Krásno ore district) Nb–Ta–Ti oxides were analyzed. The predominantly occurred mineral phase is Nb–Ta–rutile, accompanied by ferrocolumbite and very rare W-ixiolite. Aim of studies in the eastern part of the Krušné hory Mts is to complete dataset of chemical analyses of accessory minerals from A-granites. Six quartz populations were distinguished in P-high granites (Podlesí) and P-low granites (Hora Svaté Kateřiny). Of all the determined elements (Li, Be, B, Al, Ge, P, K, Na, Ca, Ti, Mn, and Fe), only Ti decreases with increasing fractionation. Assemblages of accessory minerals from P-low granite of the Hora Svaté Kateřiny stock were studied in an effort to distinguish how both magmatic and

hydrothermal processes affected the rock system. The primary accessory phases included fluorite, magnetite and zircon with rare xenotime, monazite, and thorite. Pyrite, arsenopyrite, chernovite, rhabdophane, bastnäsite and Ce-dominated oxyfluoride are products of hydrothermal stage. Research on petrology, geochemistry, zoning and emplacement mechanism of the Říčany granite in the Central Bohemian Plutonic Complex was also part of our recent activity.

#### **List of publications:**

- Breiter K., Škoda R. (2008): Arsenic-involved alteration of Zr-Th-REE accessory minerals from Hora Svaté Kateřiny, granite stock, Czech republic. In: Harlov D., Broska I. (Eds.) MIMET 2008 Workshop, Smolenice, Slovak republic, April 8<sup>th</sup>-10<sup>th</sup> 2008, 14-17.
- Breiter K., Mueller A. (2008): Quartz chemistry of rare metal granites. – Eur. J. Min. (accepted).
- Finger F., Gerdes A., René M. (2008): The Saxo-Danubian Granite Belt: A large-scale magmatic structure revealing Late Variscan mantle tectonics below the south-western Bohemian Massif. In: Koenigshof P., Linnemann U. (Eds.) From Gondwana and Laurussia to Pangaea: Dynamics of Oceans and Supercontinents. 20th International Senckenberg-Conference & 2nd Geinitz-Conference, Final meeting of IGCP 497 and IGCP 499. Abstracts and Programme. Frankfurt am Main, 46-47.
- Trubač J., Žák J., Janoušek V. (2008): Magnetic fabric of the Říčany granite, Bohemian Massif: a record of helicoidal magmatic flow? YORSGET, Ovideo, July 1-3, 2008, Programme & Extended Abstracts, 633-638.

#### **Activities planned in 2009:**

- Advancing study of accessory minerals in topaz-bearing granites and related rocks of the Krušné Hory batholith (Krásno, Vysoký Kámen, Hora sv. Kateřiny, Schneckenstein, Sadisdorf, rhyolite of the Teplice caldera),
- Experiments to constrain influence of lithium and phosphorus on columbite solubility in topaz-bearing granite melt (together with Leibniz University of Hannover, F. Holtz, joint project of AS CR and DFG)
- Participation in the GeoDresden 2009 Conference

#### **4. IGCP meetings held in the Czech Republic in 2008**

IGCP 491 - The 5<sup>th</sup> Symposium on Permo-Carboniferous Faunas (July 7-11, 2008, Hradec Králové, Czech Republic)

Organized by Drs. Stanislav Štamberg and Jaroslav Zajíc

32 participants from 8 countries (Australia, Canada, Czech Republic, France, Germany, Italy, Slovakia, and United Kingdom)

One-day workshop “Interpretation of Marine and Freshwater Environments in Carboniferous and Permian Deposits”

Two-day field excursion to the Krkonoše Piedmont Basin and the Boskovice Basin.

26 talks and 5 posters (34 abstracts published).

#### **5. IGCP meetings planned for 2009**

none

#### **6. Other relevant information**

In order to promote IGCP activities in the Czech Republic the Committee has also continued in seeking funds for the IGCP National Committee special foundation established in 1996. Generous donations, which enabled to offer 10 grants in the total amount of 204 600,- Czk (equivalent of about 8,000 EUR) was kindly provided by the following sponsor of the Czech IGCP National Committee:



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The Czech IGCP NC supported financially the IYPE activities on national level in 2008 that also involved promotion of geosciences through various expositions in different cities in the Czech Republic.

The Czech IGCP NC also supported a proposal for a new IGCP Project “*Application of magnetic susceptibility on Palaeozoic sediments*”, jointly prepared by Dr. Anne-Christine da Silva (Belgium) and her international team.

The website address of the Czech IGCP National Committee is <http://www.gli.cas.cz/igcp/>