

InterRidge

Steering Committee Meeting Report, 2006

Vernadsky Institut, Moscow, Russia 14 - 16 June 2006

> Chair Colin Devey

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Absent Steering Committee Members:

Fernando Barriga 2001 (Portugal) John Chen (China) Paul Dando 1999 (UK) Nicole Dubilier 2004 (Germany) Charles Fisher 2002 (USA – term completed)) Françoise Gaill 1998 (France) Tim Henstock (UK) Sang-Mook Lee (Korea) Rosario Lunar (Spain) Rolf Pedersen 2001 (Norway) K. A. Kamesh Raju 2005 (India)

- Kristen Kusek (2004) InterRidge Education and Outreach 225 Walden Street Apt. 3M Cambridge, MA 02140 USA Tel:+ +1 617 354 1408 kristenkusek@aol.com
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Meeting Agenda Day 1 and 2

| | Meeting Agenua Day Tanu Z | |
|--------|--|-------------------------|
| 1 | Meeting with Erik Galimov, Director of the Vernadsky Institute | |
| 2 | Introduction and welcome | C. Devey |
| 3 | General organization of meeting | S. Silantyev, C. Devey |
| 4 | Agreement on meeting agenda | C. Devey |
| 5 | Accept 2005 meeting minutes | C. Devey |
| | | C. Devey |
| 6 | IR steering committee issues | Coordinator |
| a b | Confirmation of 2006 steering committee members Involvement of/support for young scientists | C. Devey |
| | Hosting Nation for IR office 2007-2010 | J. Lin |
| c d | Next steering committee meeting – when and where | C. Devey |
| u 7 | IR Budget | |
| ' a | IR budget 2005 | C. Devey |
| a b | Status of payment of billed nations | C. Devey |
| D | | D. Blackman, J. Lin, |
| 8 | National updates | N.Seama, J. Dyment, S. |
| 0 | Inational updates | Scott, C. Devey |
| | | Scott, C. Devey |
| | Summary discussion | C. Devey |
| 9 | Working groups | |
| a | Biogeochemical interactions at deep sea vents | |
| b | Biology | |
| c | Hotspot-ridge interactions | |
| d | Ultraslow spreading ridges | |
| e | Deep earth sampling | |
| f | Monitoring and observatories | |
| g | Back-arc basins | |
| 5 | Update and discussion (Global Exploration – is there even interest?; Critical | |
| h | discussion on why and how WG's need IR to pursue their scientific | C. Devey |
| | endeavors – seems most international collaboration happens through networks established during the first decade of IR) | |
| 10 | General topics of interest | |
| 10 | InterRidge statement of commitment to responsible research practices at | |
| а | deep-sea hydrothermal vents | C. Devey |
| b | Status of RussiaRidge as part of InterRidge | S. Silantyev / C. Devey |
| c | | |
| - | | |
| 11 | Workshops and meetings FEEDBACK | |
| a | Cyprus Field School, May 2005 | |
| b | Russia Ridge meeting, St Petersburg, June 2005 | |
| c | 3 rd international vent and seep biology meeting, September 2005 (IR-R2K) | |
| d | Education outreach contributions at meetings (AGU, AAAS, ESOF) | K. Kusek |
| | discussed later | IN. INUGUN |
| 12 | Workshops and meetings NEW | |
| а | SCOR International Marine Projects Summit Meeting December 2006, London, UK | C. Devey |
| | InterMargins workshop on international data sharing and connection of | |
| | existing/future national databases. There is considerable overlap in the types | |
| b | of data and range of disciplines for InterMargins and InterRidge - make it a | D. Blackman |
| | joint workshop? Europe Fall 2007 but specific location/date has not yet been decided. | |
| | ADDITIONS such as 30 th Anniversary plans? | |
| 13 | Workshops and meetings UPDATES | |
| | Mission MOHO - Understanding the Formation and Evolution of the Oceanic | |
| а | Lithosphere Joint IODP/R2K/IR/USSSP meeting, USA, 6-9 Sept 2006 | |
| b | Polar Ridges, Italy, September 2006 | Coordinator |
| | | |

| d 14 | Brazil workshop 2007 – proposal InterRidge databases, IR News and website | |
|---------|--|----------|
| 15 | InterRidge Education and Outreach – update | K. Kusek |
| 16 | Review 2005 action list | |
| 17 | Last minute issues | |
| 18 | Actions for 2006 | |
| | Finish meeting | |
| | 19:00 Dinner | |

MEETING AGENDA Day 3

| Welcome and introduction | S. Silantyev |
|---|--|
| Talks by IR members | |
| Talk about the study of MOR massive sulfides in the Mid-Ocean Ridges | N. Bortnikov (corresponding member of the Russian Academy of Sciences and possible chair of a new Working Group) |
| Talk on information on preliminary results of 50 th cruise of R/V Academik Mstislav Keldysh – news from Broken Spur, Lost City and Rainbow hydrothermal fields | S. Silantyev |
| Discussion between IR members and official people from Russian Academy of Sciences (approx. 2 hrs) | |
| | |

1 Introduction and welcome

The InterRidge Chair, Colin Devey, welcomed the Steering Committee members to the meeting. He thanked Sergei Silantyev for hosting the meeting and organizing the venue and logistics.

2 Acceptance of the meeting agenda

The agenda of the 2006 steering committee meeting was circulated electronically to all Steering Committee members prior to the meeting. No additions were requested, the order of the points was changed somewhat to reflect the ongoing discussions.

3 Accept 2005 meeting minutes

The minutes were finalised in September 2005 and circulated to all Steering Committee members. These minutes were unanimously accepted by the Steering Committee.

4 IR steering committee issues

4.a Confirmation of 2006 Steering Committee members

Donna Blackman informed the StComm that Chuck Fisher is not longer a Steering Committee member. In view of the Woods Hole bid to host the office 2007-2009, R2K did not, at the present time, feel the need to appoint another Steering Committee member to replace Chuck. Chuck was thanked for his enormous efforts to support InterRidge; his input as a Steering Committee member was always very valuable. DB said she will think of another biologist from the US who may do well to serve the IR community in some capacity.

4.b Involvement/support for young scientists

CD gave suggestions on how industrial sponsors could support young scientists. This could be done by providing equipment or travel costs for young researchers to participate at conferences. This is particularly important for young researcher from less industrialised countries. Companies also may be more apt to support an organization actively involved in education and outreach. Concerns were expressed about conflict of interest between accepting industry money and the scientific integrity of IR. This can probably be solved by using industry sponsorship purely to support needy scientists (either young researchers or those without national funds to cover costs for cruise, workshop or lab visit costs). The core funding of IR should remain covered by national contributions.

4.c Hosting Nation for IR office 2007-2009

JL gave a presentation on the Woods Hole bid. They envisage appointing an IR coordinator and the IR E+O coordinator. The Chair would be JL (research on geophysics, geodynamics, earthquakes) and the Co-Chair would be Chris German (CG) (research on geochemistry, hydrothermal vents, bio-geochemistry). Both are very involved in IR, based at the same Institute and JL speaks Chinese, which could open up contacts in Asia. He was US Chief Scientist on the first joint China-US Ridge cruise to EPR and SWIR, 2005-2006, co-initiated IR China Program with John Chen, 2003. Chris

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German has a wealth of experience working within the European science system. JL sees major new opportunities for international ridge research through some upcoming major international programs. He also suggested that countries with growing economies, such as China, India, Brazil etc will play increasingly significant roles in ridge exploration. The next few years will be particularly important in the development of public policy concerning ocean ridges. In particular JL saw the International Seabed Authority, with its inputs from the ridge research community, other interest groups and ocean-related industries, as playing a major role in IR's future. JL and CG's vision for IR in the coming years is that IR should continue to focus on its mission of the next decade interactive science plan (2003-2014) with the following recommendation: Promote exploration in remote ocean basins, identify projects in which IR can play a unique leading role, encourage and stimulate international cooperation (see Appendix II). JL emphasized the importance of growing IR's budget so that IR is more sustainable. He has strong support from the WHOI administration and while the initial budget shows a deficit of US \$28000, JL expressed confidence in keeping the budget in the black for Year 1. He emphasized his desire to do new and innovative work within IR, as well as his passion for IR's role within the greater scientific community.

The bid was accepted with the following recommendations:

- The tasks and duties of the Chair and Co-Chair should be clearly defined and communicated internally and externally so that responsibilities are clear to all.
- A breakdown of the components of the Coordinator's salary is provided. It was noted that positions at WHOI require high overhead costs compared with many other institutions.
- JL should provide time for the transition time needed by the new coordinator.

The future of the E&O effort after 2007 was clearly communicated to the Steering Committee, some of whom saw difficulties supporting E&O activities from IR's core funding after 2007 (see later).

4.d Next steering committee meeting- Brazil

CD gave a brief summary of the Brazilian proposal with its objectives (see Appendix III). The meeting is planned to coincide with the congress of the Brazilian Geophysical Society. The Steering Committee strongly supported holding the next meeting in Brazil to help raise the profile of ridge research there. They suggest that the organisers also work to get representatives from other South American countries to attend the Steering Committee meeting as guests. One outcome of this might be that a number of South American countries could get together to become one associated member of IR. The national representatives from Brazil should be encouraged to come to the workshop and the Steering Committee meeting.

The Steering Committee members present unanimously voted to hold the 2007 Steering Committee meeting in Brazil as proposed.

5 IR Budget

5.a IR budget 2005

The budget as circulated in the Coordinator's report was presented by CD, discussed and accepted. Two members of the Steering Committee requested a more detailed breakdown of funds used for E&O activities.

5.b IR budget 2006

Despite problems with the national funding of the Japanese ridge program, NS has worked hard with individual institutes to raise the Japanese Full Member contribution. At present he has a commitment for US\$20.000; he hopes to eventually achieve US\$25.000. Several Full Member nations are experiencing funding problems – this is perceived in some cases as being due to funding agencies being reluctant to contribute science funding money to a program that does not do science outright, but rather coordinates it. Concern was also raised that as funding for straight science research declines, it becomes tougher to support initiatives such as E&O. A long discussion ensued on E&O funding and the work of the Working Groups (WG). The results of this are presented in the relevant sections, below.

6 National updates

National updates (Appendix IV) were presented by four of the five principal member nations (except the UK), and two of the 17 corresponding member nations. DB gave a brief summary of the workshop proposal "International Data Access and Data sharing", JL demonstrated the importance and advantages of a collaboration between US and China (and presented the national update from China on behalf of John Chen), NS presented the difficulties IR has in Japan at the moment in terms of the member fees, the different structure of smaller and the bigger research institutes in term of IR and IR E+O. He emphasised the importance of translating project reports into the Japanese language to involve more Japanese researchers. JD stated that France has no national ridge project, but that the major focus of French ridge research lies at the MoMar site, with upcoming research cruises to Rainbow and other sites. For France it might be difficult to raise US\$25.000 IR fees next year. Further E+O should provide more information in French. SS gave a talk on the Canadian IR situation, where the community is also small. He sees few researchers coming into ridge studies to be his successor. The rise of marine mining may change this situation however, as Nautilus Minerals is now part of a Canadian company. CD gave a summary of the current ridge research in Germany in the SPP1144 and the successful M68/1 cruise to the South Atlantic.

In general it was suggested that IR needs to increase the activities of its Working Groups to nurture more international science projects. This led into the extensive discussion covered in Section 9. Reports are attached from:

DeRidge (C. Devey) - principal member (Appendix IV-1)

Ridge 2000 (D. Blackman) - principal member (Appendix IV-2)

CanRidge (S. Scott) - corresponding member (Appendix IV-3)

JapanRidge (N. Seama) - principal member (Appendix IV-4) InterRidge China (J. Chen) – associate member (Appendix IV-5) RussianRidge (S. Silantyev) – corresponding member (Appendix IV-6) InterRidge France (J. Dyment) - principal member (Appendix IV-7)

7 Meeting with Erik Galimov, Director of Vernadsky Institute

Academician Galimov welcomed us to the Institute and explained the Institute's mission. The StComm thanked him for his willingness to host the meeting. Both sides hope that this will signal an increase in Russian involvement in IR.

8 General Topics of interest

There is a need to discuss with all Steering Committee members the handling of the IR E+O in the future (after 2007). The costs for the IR coordinator E+O for 2007 will be covered by WHOI for 2007, but after 2007 it needs to be decided how the costs are covered and if there are ways for external funding and it should be voted if there is the overall wish to continue with IR E+O. In Germany and the US the funding agencies support E+O activities.

8.a InterRidge statement of commitment to responsible research practices at deepsea hydrothermal vents

CD reported that the statement has already been translated into German for use by the German Science Foundation DFG. There is a general agreement that the statement should be translated into Chinese and Russian to inform the governmental funding bodies.

8.b Status of RussiaRidge as part of InterRidge

Discussions are ongoing in Russia about becoming an Associate member. The Russians have a very active seafloor mineralisation community. The Russian research which has been presented to the Steering Committee members present at the meeting in Moscow in form of the St. Petersburg abstract volume should be added to the IR web page. The next R-Ridge workshop is slated for 4-7 September 2007, and will be dedicated to the memory of Prof. Leonid Dimitriev

9 Working groups

There are currently seven IR working groups. CD gave a brief overview of the activity of the WG (one WG (Biogeochemical Interactions) submitted a written report, Appendix V-1). It was clear that some are much more active than others. The terms of reference of the WG were questioned. A general feeling was that a WG should organise an international workshop; if the product of this workshop is a clear program plan that needs further IR support then IR should offer it, but if the outcome is that national programs are dealing with the scientific problems on their own then the WG should be disbanded. After extensive discussion, the following generic plan for how a WG should operate was formulated:

1. A group of up to 10 international proponents submit a proposal to IR for the formation of a WG.

- 2. This proposal is considered by the StComm. If accepted, IR provides US\$2.000 "leverage money" to help these max. 10 people meet, possibly flanking another major congress. The aim of the meeting is for these proponents to finalise a plan for a workshop or cruise coordination.
- 3. The workshop/coordination plan is submitted to IR StComm. If accepted, US\$3.000 is given if necessary for workshop support/leverage or further cruise planning.
- 4. The workshop may have two end-member outcomes either it produces a clear plan for how IR can help push forward science through a coordinated effort or it concludes that national programs are dealing with the burning issues at present and so IR involvement is not absolutely necessary at the time. The former outcome could lead to a proposal to IR to continue the WG, the latter outcome leads to the WG disbanding.

This plan may lead to a reduction in the number of WG but also raises the total support given by IR to its WG (from US\$3.000 to US\$5.000). CD agreed to contact all WG Chairs and all absent StComm members for their feedback before this plan is adopted.

10 InterRidge Education and Outreach – Update

Kristen Kusek presented the IR E+O program (Appendix VI) with its two Major Media / Public Events including the AAAS meeting (February 2006, St. Louis, MO, USA) - where IR officially unveiled the commitment to responsible research practices, and the ESOF meeting (July 2006, Munich, Germany). For ESOF (EuroScience Open Forum), IR is hosting a science symposium with six IR speakers, hosting a showing of the IMAX film "Volcanoes of the Deep Sea," doing an outreach exhibit all week long, and holding a press conference. Further, the IR Oceanography magazine project was introduced; the issue will comprise 15 articles with 138 pp. due for publication in March 2007. Funding has been secured by IR, DeRidge, ChEss, NOAA and NSF. CD, JL, DB, and NS agreed to look for additional funding to purchase another 2500 copies of the magazine for IR's use (cost: \$5500). The goals of Science Writer-at-Sea were reiterated: to provide a practical, yet inspiring science journalism 'boot camp' for grad students in journalism that encourages open dialogue between scientists and journalists; to accomplish E&O objectives for scientists in a cost-effective, meaningful way and to boost public understanding of the ocean planet via the main tangible product: original, compelling, multimedia stories generated by the cruise experience. Support for the project has been exceptional, and efforts are underway to get long-term support for the project. Also presented was the IR part in Ridge 2000's GLOBE initiative, a program aimed at the formal classroom setting. IR's participation is critical to the success of this project, which is international in scope and has been in existence for ten years.

11 Workshops and meetings FEEDBACK

11.a Cyprus Field School, May 2005.

The IR community supported 7students by US\$ 300 each to attend the workshop. The workshop was a full success.

11.b Russian Ridge meeting in St. Petersburg June 2005

The abstract volume of the Russia Ridge meeting in St. Petersburg in June 2005 can be found as an PDF file on the IR web page.

11.c The 3rd international vent and seep biology meeting, La Jolla September 2005

This was a very successful, well attended meeting. It was felt that the vent and seep biology community are very active at present.

12 Workshops and meetings UPDATES

12.a Mission MOHO – Understanding the Formation and Evolution of the Oceanic Lithosphere

This joint IODP/IR/R2K/USSSP meeting will take place in Portland, Oregon 7-9 Sept. 2006. The participant list is finalized and invitations have been sent out. There will be around 100 participants.

12.b Polar Ridges Workshop, Sestri Levante, 20-22 Sept. 2006

There are 32 participants that have fee-registered for the Polar Ridges meeting in September 2006 in Sestri Levante, Italy. The IR office has received 30 abstracts so far.

13 Workshops and meetings NEW

13.a SCOR International Marine Projects Summit Meeting December 2006 in London.

This is the second time that SCOR, with financial support from the Sloan Foundation, will be organising a meeting for leaders and coordinators of international organizations in the week 6-9 Dec. The last meeting was attended by CD and KF and proved very useful. This time the meeting will focus on data exchange between programs (see also next point). It was decided that Jian Lin and the new IR coordinator will attend the meeting.

13.b InterRidge/InterMARGINS workshop on international data sharing

A proposal has been received from Suzanne Carbotte and Kerstin Lehnert to hold a workshop on data sharing. DB gave background information. The InterMARGINS StComm has already agreed to support it with an amount ~US\$25,000. The IR StComm also agreed to support this meeting (~US\$3,000), as the exchange of large amounts of data will become increasingly important in the future. CD will attend for IR. IR also suggests that Christine DePlus be put forward as possible attendee.

14 InterRidge database, IR News and website

The Steering Committee re-affirmed the need for a hard copy version of IR News. All documents since 1994 can be found on the IR homepage. The website is continually being updated but is from layout and internal structure in a stable state.

15 Review 2005 action list

All but three of the action points on the 2005 list have been resolved. Of these three, the idea of a 3rd membership category has been shelved for the time being as no practicable means of doing this was clear. Little progress has been made on establishing an IR database for deployed equipment at frequently-visited sites, R2K has such a site and so this may be something which national programs can do better. An article on Atlantic work for IR News has now been solicited from Mathilde Cannat and others.

16 Last minute issues

- It was suggested that KK looks into organising an E&O workshop for representatives from the different IR nations to help disseminate IR E&O materials and ideas.
- There was general agreement that it would be useful to purchase extra copies of the Oceanography magazine issue. Individual programs or institutes will be approached for contributions towards the \$5,500 for 2,500 copies needed.

| Minutes item nr. | Subject | Action | Responsible |
|------------------|------------------------------------|----------------------------|-------------|
| 4c | c New Office Update bid with clear | | JL/CG |
| | | definitions of tasks of | |
| | | Chair and Co-Chair | |
| 4c | New Office | Provide breakdown of | JL/CG |
| | | components in | |
| | | Coordinator's salary | |
| 4d | Next StComm | Contact Brazilian | CD |
| | meeting | organisers to encourage | |
| | | participation of other S. | |
| | | Am. nations at StComm | |
| | | as guests | |
| 5a | Budget | Provide breakdown of | CD |
| | - | E&O budget in 2006 | |
| 5b | Budget | Help national offices with | CD |
| | | their budget requests | |
| 8b | Russia | Add St Petersburg | Coord. |
| | | presentation to website | |
| 9 | WG | Circulate WG proposal to | CD |
| | | WG Chairs | |
| 9 | WG | Circulate WG proposal to | Coord |
| | | StComm | |
| 10 | E&O | E&O presentation on | Coord |
| | | website | |
| 11b | Russia | Put St Petersburg | Coord |

17 Actions for 2006

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| | | abstracts on website | |
|-----|--------|---|-------------|
| 13a | SCOR | Give name of attendees at SCOR London workshop in December to Ed Urban of SCOR (Urban informed of office move) | JL/CG |
| 16 | Budget | Breakdown of expenses for 2006 | Coord/CD |
| 16 | E&O | Sound out interest in IR E&O workshop | КК |
| 16 | E&O | Find funding for extra Oceanography copies | DB, JL, CD, |

18 Presentations by and discussion of Russian Ridge

N. Bortnikov gave a talk on the study of MOR massive sulphides. Sergei Silantyev gave a talk on the research conducted by Russian Ridge between 2003 and 2005. In summary the following results were presented:

- New hydrothermal fields were discovered by R/V "Professor Logachev" operation at MAR between 12°- 17°N.
- First data on geochemistry and petrology of plutonic complex from MAR near RTI at 6^oN (Sierra Leone FZ) were obtained.
- First results of the study of petrology and geochemistry of plutonic rocks recovered by drilling in ODP Leg 209, Sites 1275B and 1275A (in cooperation with Henry Dick, WHOI, USA).
- 50-th Cruise of R/V "Akademik Mstislav Keldysh" to the Broken Spur, Lost City and Rainbow Hydrothermal Fields.

The whole presentation can be found on the IR webpage.

After the presentations of Nicholas Bortnikov and Sergei Silantyev there was a discussion between IR members and officials from the Russian Academy of Sciences about possible collaborations in the future. This meeting with Russian scientists was finished by Sergei Silantyev.

InterRidge Steering Committee Meeting 2006 Appendices

APPENDIX 1 InterRidge Chairs and Coordinators – Past and Present

InterRidge Chairs

| Colin Devey (Germany) | 2004 - present |
|-------------------------------------|----------------|
| Kensaku Tamaki (Japan) | 2000 - 2003 |
| Mathilde Cannat (France) | 1997 - 1999 |
| Roger Searle (UK) | 1994 - 1996 |
| John Delaney, co-chair (USA) | 1991 - 1993 |
| H. David Needham, co-chair (France) | 1991 – 1993 |
| | |

InterRidge Coordinators

| May 2006 - present |
|------------------------|
| March 2004 – present |
| March 2004 – May 2006 |
| Nov. 1999 – March 2004 |
| March 1997 – Nov. 1999 |
| Oct. 1996 - March 1997 |
| Oct. 1993 - Oct. 1996 |
| 1989 -Oct.1993 |
| |

InterRidge Steering Committee Members - Past and Present

| Canada Steve Scott S. Kim Juniper China | 2004 - 2006 1998 - 2004 | Kantaro Fujioka Hiromi Fujimoto Tetsuro Urabe Kensaku Tamaki Kensaku Tamaki | 1999 - 2001 1997 - 2000 1995 - 1998 1992 - 1997 2000 - 2004 |
|--|---|---|---|
| John Chen | 2004 - present | | |
| France Jérôme Dyment | 2001 - present | Korea Sang - Mook Lee | 2001 - present |
| Françoise Gaill Françoise Gaill, <i>ad ho</i> Javier Escartin, <i>ad ho</i> Mathilde Cannat | 2004 - present c 1998 – 2004 | Norway Rolf Pedersen Eirik Sundvor | 2001 - present 1996 - 2000 |
| Catherine Mével | 1997 - 2003 | Portugal | |
| Daniel Desbruyères, a Jean Francheteau H. David Needham | d hoc 1991 - 1997 1991 - 1998 1991 - 1994 | Fernando Barriga Ricardo Santos, <i>ad hoc</i> Miguel Miranda | 2001 - present 2002 - 2004 1996 - 2000 |
| n. David Needhann | 1001 - 1004 | Miguer Miranda | 1990 - 2000 |
| Germany | | Spain | |
| Colin Devey | 1999 - present | Miquel Canals | 1995 - 1998 |
| Peter M. Herzig Roland Rihm | 1996 - 2000 1995 - 1998 | Juan José Dañobeita Rosario Lunar | 1995 – 1998 2005 - present |
| | 1000 - 1000 | | 2000 - present |
| India | | UK | |
| K. V. Kamesh Raju | 2005 - present | Tim Henstock | 2004 - present |
| Abhay V Mudholkar Ranadhir Mukhopadhy | 2002 - 2005 (a), 2000 - 2001 | Paul Dando Christopher R. German | 1999 - present |
| | ay 2000 – 2001 | Philippe Blondel, ad ho | |
| Italy | | Lindsay Parson, ad hoc | |
| Enrico Bonatti 1998 - | 2004 | Roger C. Searle | 1994 - 1998 |
| Japan | | Martin Sinha | 1991 - 1996 |
| Jun-ichiro Ishibashi | 2005 - 2005 | USA | |
| Nobi Seama | 2005 - present | To be announced | 2006 - present |
| Masataka Kinoshita | 2002 - 2005 | Donna Blackman | 2005 - present |
| Toshitaka Gamo | 2001 - 2005 | Charles Fisher | 2002 – 2006 |

| Deborah Smith Spahr C. Webb, <i>ad hoc</i> | | - 2004 |
|--|--------|-------------|
| Jian Lin, <i>ad hoc</i> Christopher G. Fox, <i>ad</i> | | |
| David Kadko | 1998 - | |
| Alan Chave, ad hoc | 1997 - | - 2001 |
| Dave Christie | 1997 | - 2001 |
| Karen Von Damm | 1996 | - 1998 |
| Lauren Mullineaux, ad I | hoc | 1996 - 2000 |
| Robert S. Detrick | | 1992 - 1995 |
| John Delaney | | 1991 - 1994 |
| P. Jeff Fox | | 1991 - 1994 |
| Charles H. Langmuir | | 1991 - 1996 |

InterRidge National Correspondents - current

Principal Members: France – Jérôme Dyment (confirmed in 2005) Germany - Colin Devey (confirmed in 2006) UK – Tim Henstock USA - Charles Fisher

Associate Members: China –J. Chen (confirmed in 2006) India – K. A. Kamesh Raju (confirmed in 2005) Japan – Kyoko Okino (confirmed in 2006) Korea - Sang-Mook Lee (confirmed in 2005) Norway - Rolf Pedersen (confirmed in 2006) Portugal - Fernando Barriga Spain - Juan José Dañobeita (asked Rosario whether this could be Jesus Martinez-Frais)

Corresponding Members: Australia – Dietmar Müller (confirmed but looking for alternative within Australia) Austria - Monika Bright (confirmed in 2006) Brazil - Suzanna Sichel (confirmed in 2005) Canada - S. Scott (confirmed in 2006)

Denmark - ? (John R. Hopper moved to Germany) Iceland - Karl Grönvold Italy – Paola Tartarotti (confirmed in 2006) Mauritius - Daniel P. E. Marie Mexico - ? (J. Eduardo Aguayo-Camargo emails bounce back) Morocco - Jamal Auajjar (confirmed in 2006) New Zealand - Ian Wright (confirmed in 2006) Philippines - Graciano P. Yumul, Jr. (confirmed in 2006) Russia - Sergei A. Silantyev (confirmed in 2005) South Africa - Petrus Le Roux (NEW confirmed in 2006) Sweden - Nils G. Holm (confirmed in 2006) Switzerland - Gretchen Früh-Green (confirmed in 2006) SOPAC - Russell Howorth (confirmed in 2005, email bounced back in 2006, contacted Cristelle Pratt to find out details)



APPENDIX 2 InterRidge Financial Support Program for Ridge

Research

Goal: To ensure the continuation and expansion of ridge research by assisting outstanding students and junior scientists in their integration into - and facilitate and expand education outreach efforts within - marine sciences.

Primarily the InterRidge Financial Support Program for Ridge Research was developed to integrate a young generation of ridge scientists or scientific journalists into InterRidge and thereby the international ridge science community. This is achieved by providing:

- Sponsorship for young scientists to participate in cruises lead or workshops held by InterRidge member nations
- Registration fees for InterRidge workshops or meetings
- Travel funds to participate in InterRidge working group meetings
- Fellowships for a young scientist (developing nation) to do research at an institute of a nation with a strong ridge program
- Education and outreach activities (student journalist at sea funding, funding for IR member to give a talk at a school, etc).

What is InterRidge?

InterRidge is an international and interdisciplinary initiative concerned with all aspects of mid-ocean ridge/ocean spreading center research. It is designed to encourage scientific and logistical coordination between researchers of all nations, with particular focus on problems that cannot be addressed as efficiently or effectively by nations acting alone or in limited partnerships. InterRidge promotes the sharing of ridge-related technologies and facilitates internationally collaborative projects. InterRidge especially encourages the involvement of less industrialized countries in the study, use and protection of ridges. InterRidge has a clear obligation to inform and involve both the public and governments in and about ridge research.

More information can be found on the InterRidge website at <u>www.interridge.org</u>.

Terms of reference:

- To assist in defining and coordinating field programs and experiments through InterRidge working groups.
- To facilitate exchange of ideas/plans, e.g. by convening international workshops.
- To provide current information about research activities through the InterRidge website and *IR News*.
- To help improve procedures for data management, exchange, synthesis, and preservation.
- To encourage participation of smaller oceanographic countries and individual scientists from non-seagoing countries.

- To continue to develop scientific, technical and logistical co-operation among nations and to strengthen international foundations for innovative research.
- To inform, involve and educate both the public and governments in and about ridge research.

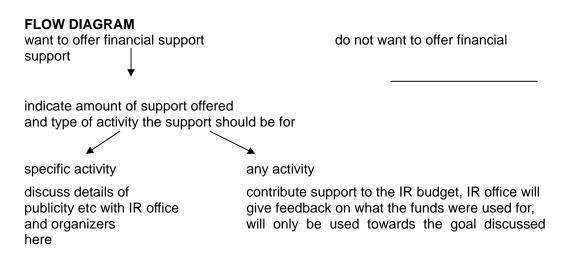
Background

The InterRidge office budget is made up of annual national membership fees that support the running of the office (coordinators' and student helper salaries, coordinator travel expenses, IR News printing and mailing costs, miscellaneous expenses etc) as well as providing limited funding for InterRidge workshops and student awards.

The InterRidge office has been approached on numerous occasions by people attending InterRidge activities as to whether InterRidge can help with travel support, etc. Larger ridge programs, such as the US Ridge 2000 program, are able to source national funding for their scientists; however there are many nations that do not have established national ridge programs or available national funding possibilities, and it is for young scientists from these nations especially that InterRidge would like to provide support for to allow them to participate in InterRidge activities. This is part of InterRidge's mission to keep the community growing and expanding and is the only the funds sourced by IR would be used.

How the InterRidge Financial Support Program works

The principal behind the InterRidge Financial Support Program is simple (see flow diagram below): if a company/agency/organization is willing to provide financial support, this can be directed to a specific activity or can be made available to any activity that the InterRidge steering committee decides upon. Either way, the details of how the company/agency/organization will be acknowledged will be discussed and agreed upon prior to support being used. The InterRidge office will give feedback.



Amounts requested

There is no set amount of funding that InterRidge requests – any contribution will help the effort. The following is a guideline for the financial requirements needed to help support young scientists partake in activities promoted by InterRidge:

| International travel (to a meeting, port of call for a cruise etc) | Euro 500- Euro 1800 |
|--|-------------------------------|
| Hotel accommodation (meeting or before/after a cruise) | Euro 50 - Euro 100 / night |
| Registration fees | Euro 50 – Euro 150 |
| Education outreach projects | |
| Film production | Euro 50 000 + |
| Writer-at-Sea preparation course | Euro 5 000 + |

What is in it for the company/agency/organization?

- keep ridge research thriving, ensure there is a "next generation" of researchers that will use equipment/services etc
- encourage other nations to develop ridge research programs that will in turn purchase equipment/services etc
- enhance positive exposure to the international ridge community and the general public

InterRidge will acknowledge anyone who provides funding for young scientists by stating what was funded and having a link to the company/agency/organization from the InterRidge website. If requested and where appropriate, a logo will be placed in the meeting agenda and/or abstract volume and in the annual InterRidge Newsletter.

Possible sources of external funding:

Intergovernmental agencies/organizations: ECOD, ESAC, ISA, SCOR Companies: Placer Dome, Nautilus, Mitsubishi, any software companies?, fuel companies (Shell, BP, etc.), Bluefin

| Company | Contact person | Address | Numbers |
|-----------------------|------------------|---------|---------|
| | (CEO) | | |
| Reedereigemeinschaft | Caspar Graf von | | |
| Forschungsschifffahrt | Spee | | |
| Schilling Robotics | | | |
| Bluefin | Frank van Mierlo | | |
| STN Atlas | Dr. W. Hornfeld | | |
| Kongsberg-Simrad | | | |
| Nautilus Minerals | | | |
| Hatlapa | | | |
| Benthos | | | |
| Seabird | | | |
| Seabeam | | | |
| Volkswagen | | | |
| | | | |

Possible contributors

Companies for: Airguns, Streamers, gravimeters, marine floats, ACDP/CTD,

Links from Nautilus Minerals site:

Worley Parsons With over 9,500 project services personnel in 59 offices in 29 countries, Worley Parsons is a leading international provider of professional services to the energy, resource and complex processing industries. Importantly their expertise covers the minerals & metals and offshore oil & gas sectors, the two industry sectors fundamental to the mining of Seafloor Massive Sulphides.

Perry Slingsby Systems Based in UK and USA, Perry Slingsby Systems is the world leader in manufacture of deep ocean remote operated vehicles "ROV's" for the oil/gas and telecommunications industries. Vehicles to 1,000HP are manufactured for applications such as deep sea trenching for pipe and cable laying and for sub sea construction activities to 3,000m. Subsidiary of international engineering company Technip-Coflexip.

Companies from International Ocean Systems (Nov/Dec 05) issue

APPENDIX 3 USA bid to host the next InterRidge Office, 2007-2009

The bid has not been received by the coordinator, but will be added/send to all members and participants on Monday before the conference.

APPENDIX 4 InterRidge Working Groups

Deep Earth Sampling Working Group update. April 2006

Working group members : Wolfgang BACH Mathilde CANNAT Henry J.B. DICK Katrina EDWARDS Kathryn GILLIS Benoît ILDEFONSE (chair) Peter B. KELEMEN Christopher J. MACLEOD Jay MILLER Yasuhiko OHARA Jan M. Peter Damon TEAGLE Douglas R. TOOMEY Susumu UMINO

Bremen University CNRS WHOI University of Victoria CNRS Columbia University Cardiff University IODP-TAMU HODJ GSC SOC University of Oregon University of Shizuoka

Bremen, Germany Paris, France Woods Hole, USA Woods Hole, USA Victoria, Canada Montpellier, France Palisades, USA Cardiff, UK College Station, USA Tokyo, Japan Canada Southampton, UK Eugene, USA Shizuoka, Japan

Associated Scientists (not directly involved in the group in initial phase)

| Natsue ABE |
|----------------|
| Donna BLACKMAN |
| John CHEN |
| David CHRISTIE |
| Nadine LE BRIS |
| Jim NATLAND |
| Kyoko OKINO |

JAMSTEC CKMAN SCRIPPS Beijing University STIE OSU RIS Ifremer ID University of Miami, RSMAS O ORI Yokosuka, Japan San Diego, USA Beijing, China Corvallis, USA Brest, France Miami, USA Tokyo, Japan

Recent Working Group Activities

Since the Working group was set-up at the end of 2004, we tried twice to take the opportunity of the fall AGU meeting in San Francisco to organize a working group meeting. As only 4 of us attended AGU in fall 2004, a working group meeting did not take place . In December 2005, we had a short, rather informal meeting on the afternoon before AGU, attended by 11 persons (including 7 WG members or associated scientists). The meeting agenda was dedicated to a short overview of the current situation of mid-ocean ridge related IODP drilling proposals, and to the organization of a joint (IODP/JOI/Ridge2K/InterRidge) "Mohole" workshop in 2006 (see below). A short report is available online on the WG webpage.

Planned WG activities

IODP, JOI, Ridge2000, and InterRidge are sponsoring an international workshop entitled, "Mission Moho: Understanding the Formation and Evolution of the Oceanic Lithosphere," September 6-9, 2006 in Portland, Oregon (http://www.iodp.org/ocean-lithosphere).

The workshop will focus on and define the "Road to Moho" by identifying the scientific and engineering objectives that can begin immediately with available technology while leading us toward the high priority IODP goal of drilling a complete section through the oceanic crust and into the upper mantle.

This initiative did not come from this WG; the workshop proposal (by Christie et al.) was initiated before its creation. However, the Deep Earth Sampling WG was instrumental in merging this proposal with the intention of IODP to organize an international "Mohole" workshop.

In the short term, our working group focus is dedicated to this upcoming workshop. After the workshop, the Working Group and its web page will be the natural way to promote the outputs of this workshop, both at scientific community and public levels. In the future, the Working Group will hopefully help facilitating international communication on other issues such as drilling active hydrothermal sites for example. What are the international problems and hurdles that you as a working group face that can only be accomplished through InterRidge ? How can IR help to manage these problems ?

The WG was probably not as active as it could be so far, primarily due to the difficulty in getting together as a group to discuss and plan the working group's agenda and give feedback on progress. This, apart from the availability of its members and chair, is the only real problem that an InterRidge working group faces. Without a budget, we are limited to trying to get together at other meetings, which severely limits the options. Gathering the whole group at least once is actually almost impossible. Electronic communication then becomes important, and this is probably where the main help from InterRidge comes in, by providing web support for working group activities. Our WG is currently not taking much advantage of the website. This can certainly improve in the future.

It turns out that the big scientific planning effort which is going to happen soon (Mission Moho workshop) would probably not have happened without the deep earth Sampling WG. It shows that there was a need for a planning structure in the field of deep drilling the ocean crust. The Deep Earth Sampling working group should be able to help maintaining this effort over several years, and will also promote and provide public outreach and education on scientific drilling of the oceanic lithosphere.

APPENDIX 5 InterRidge Workshop Feedback "Third International Symposium on Hydrothermal Vent and Seep Biology" 12 – 16 September 2005, La Jolla, California

The *Third International Symposium on Hydrothermal Vent and Seep Biology* was held in La Jolla, California from September 12-16, 2005. With sunny southern California and the eastern Pacific Ocean as a back drop, over 200 scientists from 19 countries congregated to discuss recent advances in the ecology, physiology, host-symbiont biology, microbiology, biogeography, biogeochemistry and paleobiology of vents and seeps. These interactions were stimulated during slide and poster presentations and social activities on the campus of Scripps Institution of Oceanography, as well as during excursions off campus to Catalina Island, the Wild Animal Park, the Anza Borrego desert and the old mining town of Julian. Funding was provided by RIDGE 2000, the Scripps Institution of Oceanography, the Census of Marine Life ChESS program, the US DOE Minerals Management Services, the US NOAA West Coast Undersea Research Program and Office of Exploration, InterRidge, and New England Biolabs.

There were two winners of the InterRidge outstanding student award: Stephanie Markert (Germany; "Functional Genome Analysis of the Bacterial Endosymbiont from the Deep Sea Tube Worm Riftia Pachyptila") and Dijanna Figueroa (USA, "Protein synthesis and expression patterns in Deep Sea *Bathymodiolus* Mussels") presented excellent posters of their research. Due to the high level of student contributions, four honorable mentions were made as well: Mathis Stoeckle, Canada, Diane Poehls, USA, Carol Logan, USA, and Julius Csotonyi, Canada.

Proceedings of the Symposium will be published by Cahiers de Biologie Marine. 23 contributions provide a taste of what is known, what is known to be unknown and what would be desirable to be known, in the fields of vent and seep biology. Topics include a description of new vent fields and new methods for sampling and modeling hydrothermal vent fluids, descriptions of nematode, jelly fish, gastropod, mussel, copepod and barnacle diversity, methods for rearing tube worms, analyses of diverse free-living and symbiotic microorganisms, and community-level investigations of invertebrate recruitment and habitat controls. The environments also extend beyond hydrothermal vents and cold-seeps to include wood and whale falls.

Conveners: Horst Felbeck, Lisa Levin, Doug Bartlett

APPENDIX 6 InterRidge Workshop on Ridge Studies at the MAR joint with the Steering Committee Meeting - Rio de Janeiro - 2007 - Brazil

Unfortunately nothing has been received

APPENDIX 7

Meetings Calendar

- 14-16 June 06 InterRidge Steering Committee Meeting Moskow, Russia
- 19-23 June 06 International Conference MINERALS OF THE OCEAN - FUTURE DEVELOPMENTS-3 VNIIOkeangeologia, St.Petersburg, Russia
- 9-14 July 06 11th International Deep-Sea Biology Symposium Southampton, UK
- 15-19 July 06 2nd EuroScience Open Forum (ESOF) Munich, Germany InterRidge Outreach Exhibition "Deep Sea AdVENTures (without getting your feet wet!)"
- 24-27 July 06 Western Pacific Geophysics Meeting (WPGM) Beijing, China. Special session on mid-ocean ridge processes "T08: Multidisciplinary Studies of Mid-Ocean Ridge Processes"
- 4-10 August 06 5th International Symbiosis Society Congress Vienna, Austria
- 6-9 Sept 06 Mission MOHO Understanding the Formation and Evolution of the Oceanic Lithosphere An international workshop sponsored by IODP – JOI Ridge 2000 – InterRidge, Portland Oregon, USA
- 14-18 Sept 06 Investigating Continental Breakup and Sedimentary Basin Formation an IODP International Workshop Pontresina, Switzerland
- 20-22 Sept 06 Polar Ridges Meeting and Workshop Sestri Levante
- 24-29 Sept 06 36th Annual Conference of the Underwater Mining Institute Scientific, Legal and Economic Perspectives of Marine Mining Kiel, Germany
- 24-26 October 06 Workshop Oxygen Minimum in the Ocean: Distribution, Diversity and Dynamics, Conception, Chile
- 7-8 November 06 2nd International Young Scientists' Global Change Conference Beijing, China

Biogeochemical Interaction at Deep-Sea Vents

WG objectives

The Working Group was created in 2004 to provide support and visibility to emerging research fields addressing the question of interactions between the geosphere, hydrosphere and biosphere in deep-sea hydrothermal environments. Its primary objectives are:

- to strengthen and develop cooperation between chemists, biogeochemist, geochemists, and microbial ecologists on these questiuons,.

- to favor the development of innovative technologies for in situ measurements of chemical and biogeochemical parameters by promoting the collaboration of engineers and scientists.

- to promote exchange with scientists of neighbourg disciplines, particularly with vent biologists, ecologists and geologists.

WG activities

Since we started in 2004, the Working Group has made several contribution to the scientific community through workshops and sessions in international conferences.

- EGU 2005 General Assembly Biogeosciences Programme 'Methods, tools and strategies for biogeochemical investigation of chemosynthetic deep water systems'. Vienna, Austria. April 24-29. Conveners: N. Le Bris, A. Boetius, C. German
- 2nd International MoMAR Inplementation Workshop. Lisbon, Portugal, April 7-9, 2005. Participation to the scientific committee: N. Le Bris.
- ASLO 2005 Summer Meeting. Session 'Plate Tectonics and Chemotrophy at Deep-sea Vent'. Santiago de Compostella, Spain. June 19-24, 2005. Session conveners : D. Fortin, G. Ferris
- 3rd International Symposium on Hydrothermal Vent and Seep Biology. 'Geochemistry and Biogeochemistry' Session. La Jolla, California, September 12 16, 2005. Chair : N. Le Bris
- EGU 2006 Biogeosciences programme: Methods, tools and strategies for biogeochemical interaction studies in deep-sea chemosynthetic environments. 2-7 april 2006 Vienna, Austria. Conveners: N. Le Bris, W. Bach, C. German, A. Boetius.

Outreach activity with the support of the IR office:

- Creation of a Working Group Fact Sheet
- Creation of a Working Group Web page
- Free download video sequence from the 'PHARE' cruise EPR 13°N on IR web site
- Discussion for the creation of a DVD with Future Vision (R. Cooper Producer)

New members

In 2005 the working group has welcomed two new members form India and China:

- Huaiyang Zhou Research professor in Guangzhou Institute of Geochemistry, Chinese Academy of Sciences
- Y.V.B. Sarma Physical Oceanography Division, National Institute of Oceanography, Goa, India

Future plans

Our intention is to further enlarge collaboration within the frame of InterRidge and beyond, particularly on the focus of:

- Deep-Earth biosphere (contribution to IOPD proposals)
- Comparative studies of deep-sea cold and hot vents environments
- Astro/exobiology
- Sensor developments and technology

The working group activity could culminate in a Workshop and/or Theoretical Institute in 2007 – 2008, providing that sufficient funding can be obtained from IR and partner institutions. The possibility to organize this Workshop/IT at WHOI has been discussed late 2005 with other working group members.