

PAGES SSC 2016 Meeting Minutes

21-22 May 2016, Cluj-Napoca, Romania.

PRESENT

SSC: Hubertus Fischer (HF), Sheri Fritz (SF), Pascale Braconnot (PB), Peter Gell (PG), Hugues Goosse (HG), Darrell Kaufman (DK), Michal Kucera (MK), Claudio Latorre (CL), Blas Valero-Garcés (BV), Cristiano Chiessi (CC), Mike Evans (ME), Liping Zhou (LZ), A sfawossen Asrat (AA), Lindsey Gillson (LG), Katrin Meissner (KM).

IPO: Marie-France Loutre, (MFL), Lucien von Gunten (LvG), Angela Wade (AW)

Future Earth: Kari Raivio (KR) (Sunday)

WCRP: Dave Carlson (DC) (Both days)

ABSENT

SSC: Janet Wilmshurst (JW), Yusuke Yokoyama (YY)

1. Introduction and miscellaneous

SF discussed new SSC members and new IPO members.

1.2 Approval of the Minutes from 2015 SSC meeting and outstanding actions

3q) IPBES

LG needs guidance of what's expected here as Kathy Willis did most of this in past.

1.1 ACTION: SF will provide guidance to LG re: IPBES

4a) Integrative activities – Extremes.

Need someone to take over from Chris Turney to write this.

1.2 ACTION: HG to take over Extremes.

DECISION: SSC agreed to leave other items from 2015 minutes as undone.

DECISION: 2015 SSC Meeting Minutes approved.

1.3 Approval of the 2016 Agenda

DECISION: 2016 Agenda approved by BV. ME seconded. All in favor.

2. IPO news and finances

Discussed Future Earth and IGBP funding. IGBP gave funding left over when finished at end of 2015. Will be used for YSM 2017. Future Earth has no money to give. Tend to fund local not global, but have ambitious fundraising plan. Funding will be discussed at IPO Day in Bern in June 2016.

Budget for YSM/OSM

Money from PAGES will support participants. Cost of invited speakers included.

DC discussed budgets, noting large portion of PAGES grants are reliable, multiyear.

DECISION: Budget approved by DK, LZ seconded. All in favor.

2.2.1 Paying for stakeholders – discussed in Stakeholders

2.3 US NSF further discussion

SF discussed history of PAGES and US NSF. Last two budget submissions were overseen by program director Paul Filmer - a strong supporter of PAGES - but he's now moved to International Programs and no longer in geoscience directorate. Funding is in for next 2.5 years, but in 1.5 years need to write next proposal.

SF and MFL went to US NSF in March 2016 to discuss future. Met with Carol Frost (EAR Division Director), Alex Isern (Surface Processes Section Head), Candace Major (Program Manager for Marine

Geology), Judith Skog (Program Manager, Sedimentary Geology), and Justin Lawrence (Program Manager, Geomorphology). Lawrence is our US NSF contact. MFL presented overview and question and answer session. US NSF suggested joint review of PAGES by both Swiss NSF and US NSF. SF and MFL agreed to a joint review and left it open. Isern then contacted SF to discuss concerns about allocation of funding to non-US interests. Isern contacted Swiss NSF to propose joint review of PAGES. SF said Lawrence mentioned that it would be highly likely funding will be cut as there is opposition to funding international projects. *(Addendum after SSC meeting: In June, MFL and HF met with Swiss NSF and SCnat and Swiss NSF not interested in doing a review.)*

Spoke of need to improve US NSF view of PAGES and likelihood of continued funding, other funding models, or scaling back because of lack of/less US funding. Plus better comms with Swiss NSF.

2.1 ACTION: SF to contact Filmer again for advice.

2.2 ACTION: MFL to find out how other Core Projects funded. (done)

2.3 ACTION: HF to open communication with Swiss NSF/Academy of Sciences and Alex Isern. (done)

HF discussed that currently PAGES is funded by Swiss NSF, but starting in 2017 the money will come from Swiss Academy of Sciences. It doesn't change the budget but changes who's taking care of us.

Discussion on the idea of a PAGES review. HF suggested doing an external review if think in favor of PAGES' cause. Suggestions:

- Send the review to US NSF to improve funding chances.
- Prepare one review to satisfy all sponsors.
- ICSU is doing review (WCRP used this opportunity); AAS also organize reviews.
- Plan now for program reductions, including doing more virtual meetings.
- Could go after endowments to diversify.
- Prepare the review as a strategic document, looking forward as well as back.

Such a review costs time, but not much money. Need a community of volunteers. A model with few funders should be favored rather than having various funders on top of Swiss funding. Importance of the choice of the reviewers (outside PAGES).

HF said funding always hot topic at every SSC and always been successful getting US funding. One third is invested into what benefits US directly. All WGs except one have a committee member from US. Need to show US NSF good return for the money. Suggested review process could be the opportunity to write PAGES' new science and implementation plan. HF supports diversifying PAGES' funding, but raised concerns that IPO chairs will spend too much time writing proposals. HF said IGAC and PAGES had great success because both had stable funding. But cannot ask Swiss NSF for more per year.

Discussed IPO being based in US. DC mentioned barriers when working internationally, if there.

(Addendum after SSC meeting: When MFL and HF met with Swiss NSF and SCnat it was clearly communicated that Swiss side is only uncritical about PAGES as long as IPO is in Switzerland)

Discussed lack of connection between US NSF and Future Earth.

SF called for SSC members willing to discuss, investigate and encourage US NSF funding.

MFL preparing community questionnaire, could be tailored for review.

Further discussion about what needed in review to please US NSF.

DECISION: Group consisting of SF, HF, ME, MK, LG, LvG to identify key questions, strategies. They will form a review group.

2.4 ACTION: SF, HF, ME, MK, LG, LvG to report – by when?

2.5 ACTION: HF to talk to Swiss Academy about their stand on this when gets back to office. And ask about the review.

(Addendum after SSC meeting: On June 1, HF discovered that Dr. Nussbaum is the person responsible for the move and integration of PAGES from the Swiss NSF into the Swiss Academy of Natural Sciences (SCnat). Dr. Nussbaum was already informed by the Swiss SNF that the US NSF wants to partly withdraw from PAGES at the end of this funding period. He stated that PAGES is an important asset for the SCnat and that they stand by their commitment. He also sees that a partial withdrawal by the US NSF represents a major funding problem and should be avoided by all means.)

3. Review of PAGES Working Groups

Only WGs with news/concerns/issues to be discussed, not every working group.

3.1 Implementation and 3.2 2k Network (combined)

2k Network (LvG, DK, ME):

- Group has good structure, very busy and many papers published.
- Now has transregional as well as regional groups.
- Over 1000 mailing list subscribers for entire 2k Network.
- Group also uses a lot of resources (meeting support, IPO time etc).
- Phase 2 finishes end 2016 with special issue of *Climate of the Past* – 37 proposed papers.
- Community was asked how to continue in Phase 3, not many responses. Definitely want to continue but in what form? Still focus on last 2000 years? Less rigid in regions? How to keep regional expertise plus data stewardship intact?
- Group needs more drive from bottom up, rather than top down. Some groups may struggle to continue in current form.
- Africa2k considered good group to continue as region.
- Ocean2k highlighted as extremely productive and driven.
- Euro-Med2k has a lot of data and keen to continue.
- HF said 2k structure is successful but cannot maintain so many groups and workshops. May separate structural organization of group and funding of workshops, driven more by ideas and new products.
- HG suggested modifying the smaller groups to be more open. ME agreed should leverage the excitement from proactive groups.
- Discussion on collection of regional data, interaction with modeling community, temperature database, Holocene or 2000 years.
- Main focus once 2k finished will be “Integrative activities” but suggest support for continuation in some new form.

3.1 ACTION: Steering committee to discuss how to move forward into new set of scientific questions that move 2k network and products into new space.

3.3 Working group discussions

SF asked if each person listed as the liaison for the group could send a quick communication that would help spread the workload. Now the communication comes from each reporter to send email - take it upon yourselves to help.

DECISION: Individual SSC members will now be the direct liaison person for the working groups they were allocated in the meeting agenda.

DECISION: LandCover6k: Willy Tinner to possibly take over from PG in 2017.

DECISION: VICS: HG to take over responsibility from HF.

3.2 ACTION: Each WG liaison will communicate results of SSC discussions about each working group to the working group leaders, to spread workload.

3.3 ACTION: MFL will take care of DICE as BV has too many WGs.

3.4 ACTION: SF will take Forest Dynamics from PG as he has too many WGs.

HG said some groups have very broad overview and must keep in mind they need a product and plan for products. Discussion about connections between current working groups and former working group Varves.

LvG said many new groups have young people, such as Floods and Forest Dynamics, working hard with many questions. Idea to start **online meetings** every few months, open to all working group leaders. First meeting about **database structures** as many groups plan to use databases but lots of uncertainty. Include experts. Next meeting on **communicating science**. How to communicate inside the working group. Other main goal is to bring together leaders so can be aware of what others doing.

3.5 ACTION: Online meetings with WG leaders are being prepared by LvG. SSC members encouraged to join too.

The problems of working groups losing momentum was discussed. ME raised issue that some PAGES scientists can't work on the projects for free. So either they withdraw or can't carry on. Problem growing as funding decreases. Make sure that at review stage the proposal is viable financially (enough additional funds or no need for additional funds). DK suggested proposal should ask if have outside funding sources. PAGES facilitates science through meetings but not anything beyond that.

PG raised concerns that 90% of working groups are from North America or Europe - need to back up ideology of supporting people from developing countries. Is there a way to actively engage members of other continents? Discussion about political difficulties (AA). ME suggested virtual meetings. Time differences an issue.

Aquatic Transitions (PG): Two years ago, Focus 4 changed to environment, humans (previously long-term themes). Didn't have explicit time constraint. Aquatic Transitions, Gloss and LandCover have transitioned to new three-year working groups. Now activities are 1.5 years in. Aquatic Transitions database could piggy back on Varves Working Group.

LandCover6K (HF): Need to discuss funding three workshop proposals.

DECISION: Willy Tinner to take over as liaison from PG in 2017.

VICS (HF): Good group. First meeting in June in Lamont. Can anyone go?

DECISION: HG to take over as liaison from HF in 2017.

DICE (SF): Annual report was very general. Products not clear, focusing on US NSF funding. Group needs to be encouraged to be more goal- and product-driven.

3.6 ACTION: DICE needs clearer goals – BV to communicate before handing over to MFL.

OC3 (KM): KM spoke with Andreas. They've assigned names to data collection, right now finding reference to chronology. He mentioned has many people from different countries, but group not going as well as expected. HF noted Andreas suggested he needs another workshop to assess if WG is going to get up or not. Either find someone else to lead it, or it just dies/sunsets. PB surprised this group has so many problems as big topic in Germany, France. People should be allowed to engage in these projects. LvG said database structure discussion at the beginning seemed to go well. Group finishes 2017.

3.7 ACTION: KM to liaise with them.

CVAS (MK): Scoping meeting in Montreal. Data producing large amount of variance. CVAS will bring together the paleo data and nonlinear geophysics communities. Main thing is want to understand properties of time series and origin of variance.

3.8 ACTION: MK to contact CVAS.

General discussion about connections between PAGES working groups and outside. Connections with PMIP and CMIP; co-design with QUIGS, PMIP and VolMIP; importance of data stewardship.

3.9 ACTION: MFL to follow up on how PAGES working groups are connected via time intervals, topics (including co-design).

3.10 ACTION: Get working groups with databases involved in data stewardship integrative activities now – DK.

4. Review of endorsed and affiliated activities

GEO (MFL): Had no contact for quite some time. They suggested we become a partner.

As far as know, GEO is partner of Future Earth, not a core project. General discussion about GEO followed. In conclusion, HF suggested because Future Earth is a partner, we don't need to be.

DECISION: Lose connection because Future Earth a partner.

4.1 ACTION: MFL to write to GEO to end endorsement. *(done)*

4.2 ACTION: GEO to be removed from PAGES website. *(done)*

IODP (SF): Another endorsed and affiliated group with no interaction. KM reported that in the past, PAGES tried approaching them several times with mixed results. Jan de Leeuw attended PAGES meeting once (SSC meeting Oberhofen) and Alan Mix gave talk at IODP - they were surprised how big PAGES is.

LZ commented that he met Pixian Wang at a meeting in Australia last year who suggested PAGES should be a partner with IODP at their forum in Shanghai. General discussion about IODP and ICDP followed.

DECISION: LZ to contact Pixian Wang, then a decision will be made to keep or end the connection.

4.3 ACTION: LZ to contact Pixian Wang again to find out what he meant by hosting a forum together.

HistoricalClimatology.com/Climate history Network (LvG): This group is very active and HistoricalClimatology.com has formed from Climate History Network as a space for further promotion. Both organizations very happy to receive promotion in PAGES e-news and social media and to promote PAGES activities via email to their database.

5. Proposals for new PAGES Working Groups

5.1 General discussion

At the end of 2016, 2k Network is scheduled to finish in its current form.

At the end of 2017, these working groups are scheduled to finish, so there will be openings:

Aquatic Transitions

DICE

C-PEAT

PALSEA2

OC3

LandCover6k

GloSS

Talked about the ideal number of working groups. HG said if money is saved for open call, then have less for PAGES WG workshops. 2k took a lot of resources but high visibility. He asked does PAGES want a few big working groups or 25 smaller ones not doing a lot? MK said need continuity in terms of numbers as this is where we fluctuate a lot. For example, if there are 18 WGS, with a duration of six years, then every year have to come up with three new WGs. Or do we lower the number of accepted working groups with prospects of more than three years? DK said working groups make progress quickly, and three years gives them time, but unsure of an optimal number. LvG gave ISO2k as a good example of a subgroup which has never requested money but does well for a 2k activity without a budget. HF concluded best to fluctuate between 15 and 20 WGs in total at any one time.

* **OVERALL OUTCOME: 2 of 5 groups approved by EXCOM.**

WG1 – Paleoclimate Reanalyses, Data Assimilation and Proxy System modelling (DAPS). **DECISION: Approved with comments from EXCOM.**

5.1 ACTION: IPO to contact group. *(done)*

5.2 ACTION: MFL to include liaison person on initial email to successful new WGs. *(done)*

WG2 – GROWING. **DECISION: Not approved.**

WG3 – PRWG. **DECISION: Approved with comments from EXCOM.**

(Addendum after SSC Meeting: WG now called EcoRe3: Resistance, Recovery and Resilience in Long-term Ecological Systems)

5.3 ACTION: IPO to contact group. *(done)*

5.4 ACTION: LG to contact them after notified application was successful. *(done)*

WG4 – Gulf7k. **DECISION: Not approved.**

WG5 – DILS. **DECISION: Not approved.**

5.2 Liaison officers

Would be good, but not essential, that liaison officers/reporters or SSC-member participate in / attend meetings of working groups. HF said can't leave WGs completely on own, but it should be more about being the contact person than attending the meetings. MFL and LvG will attend as many working group meetings as possible.

5.5 ACTION: PG to contact JW to see which WGs she takes, as he has too many.

DECISION: If SSC member was interested in a group before being made liaison and wants to attend the meeting, then must pay own expenses. Exceptions, especially if there is a major problem with a working group, will be considered case-by-case (and an application must be made to IPO).

DECISION: SF happy to be liaison and contact person for C-PEAT.

DECISION: On WG application form, all new WGs must contact (minimum two weeks before submitting proposal) a liaison from SSC or IPO. This section can no longer be empty.

5.6 ACTION: SF to liaise with C-PEAT.

5.7 ACTION: IPO to change proposal forms to make clear that need to have a SSC or IPO liaison person before submitting proposal. *(done)*

PG asked if it is a Future Earth meeting, like a KANs meeting for example, could someone be sent and paid for. Unsure. LvG suggested the best person to go to a meeting may not be from SSC.

5.3 Additional instrument?

Additional instruments will be dealt with on a case by case basis. WGs will be encouraged to use online meetings.

6. Relationships – now to be discussed in 16. Any other business

7. SSC & EXCOM membership

7.2 Second terms up for renewal

DECISION: PG and MK agree to continue.

7.3 Nominations for the SSC in 2017

Two spots free in 2017 - one for Swiss representative plus one other. Incomplete proposals not considered. SSC should reflect balance in gender, nations and expertise (with no priority in order). DC noted in comparison to a lot of steering committees, PAGES is weaker gender wise but with a good spread of ages. HF said a lot of very strong candidates, and good ECRs too. Pleased to see so many nominations.

DECISION: Willy Tinner (from Switzerland, also co-chair replacing HF) and Ed Brook (ice core scientist from US) selected to join SSC.

7.4 EXCOM nominations

No need for discussion. Procedure as normal.

8. Meeting support proposals

The SSC discussed the meeting support proposals in order to inform the decisions made by the EXCOM (see EXCOM minutes). It was proposed to not spend all money in order to keep money for possible Fast-Track proposals.

WG proposals should be in line with the WG and delivery of final product. Should be inclusive with funding for ECRs and people from developing countries.

Current working groups

P1 - C-PEAT. DECISION: Approved.

P2 – CVAS. DECISION: Approved.

P3 - Forest Dynamics. DECISION: Approved.

P4 – GloSS. DECISION: Approved.

P5 – GPWG2. DECISION: Approved.

P6, P7, P8 – LandCover6k. DECISION: Approved.

P9 – PlioVAR. DECISION: Approved.

P10 – QUIGS. DECISION: Approved.

Open Call

Criteria is they are open and inclusive. Tend not to fund disciplinary workshops. If a large conference, needs to have added value to PAGES for ECRs and developing countries only.

O1 – International Conference on Paleooceanography. DECISION: Approved.

O2 – Trace elements. DECISION: Approved.

O3 – Abrupt climate. DECISION: Not approved.

O4 – Analysis of sediment properties. DECISION: Not approved.

O5 – Climate Change: The KARST Record III. DECISION: Approved.

O6 – Coevolution of climate. DECISION: Approved.

O7 – Decades of quaternary etc. DECISION: Approved.

O8 – Graduates workshop. DECISION: Not approved.

O9 – Overcoming reductionism. DECISION: Approved.

O10 – Polar marine diatoms. DECISION: Not approved.

O11 – Sea-Level changes. DECISION: Not approved.

O12 – Assessment and design of urban greening. DECISION: Not approved.

O13 – Stable isotopes in fossils. DECISION: Not approved.

O14 – Validation of isotope techniques. DECISION: Not approved.

9. Revisited: EXCOM recommendations for meeting support and SSC nominations

EXCOM decisions listed above. Full details in EXCOM minutes.

10. Integrative activities (IAs)

SF reminded the SSC of the purpose of IAs - to bring together PAGES WGs to identify large themes, like 2k, as flagship events with high visibility and high impact. In terms of Future Earth agenda, the four chosen IAs – warm worlds, thresholds, extremes, data stewardship – have high impact. Until now, has been no development as to how these themes will work.

10.1 Warm worlds (WW)

HF went through the written report and said title still up for debate.

10.1 ACTION: Which other stakeholders could be approached for Warm worlds?

HF said need to bring in expertise of what we already have, not develop new databases etc.

DC said urgency for IPCC deadlines is the problem.

HF said first Warm worlds workshop could be in early 2017 which would directly lead to a review paper.

Alan Mix and HF will initiate this process, but the work would be done together with the WG leaders.

ME suggested starting virtually, but with interested community and not just WG leaders, and imagined a website/portal, where could aggregate information, like an aid of integration.

PB said there is a big PMIP effort currently ongoing with lot of synergy between model and data.

10.2 ACTION: PB would like to receive some feedback from the ecosystem and biodiversity groups on their use of the PMIP data. She would like a Town Hall meeting at OSM on that topic.

DK suggested having the working groups form the building blocks for Integrative Activities as an easier structure than getting people involved in an integrative team from outset.

HF called on people to assist him with WW. KM offered and said she was convening a session in June at Goldschmidt on warmer worlds.

PB mentioned initiative from Clouds, Circulation and Climate Sensitivity Grand Challenge from WCRP. She was contacted for the paleo part.

10.3 ACTION: HF, KM move Warm worlds IA forward - initiate online discussion with Alan and then walk with WG leaders about developing plan, then on internet and maybe widen theme based on that discussion – February?

10.4 ACTION: Define key questions first PMIP.

10.5 ACTION: Prepare for IPCC scoping workshop.

10.6 ACTION: Climate sensitivity activity?

10.7 ACTION: Decide on Warm worlds speakers for OSM. *(done)*

10.8 ACTION: Writing workshop connected to OSM – idea.

10.9 ACTION: After OSM, key people meet to come up with first draft. Timeline short for a paper for IPCC special report with an October deadline.

10.2 Thresholds, tipping points and multiple equilibria in the Earth system

Discussed if biodiversity/sustainability comes under resilience, tipping points or thresholds?

Components in all.

HF talked about IPCC special report on working group 2. Only about observational data from 1950.

No paleo in there at all, so there is an absolute need.

PB said Thresholds needs coordination for OSM.

DC mentioned possible overlap with WCRP Grand Challenge on Extremes.

10.10 ACTION: PB to find out more about connection with WCRP and advise LG.

10.11 ACTION: SF to propose at conference to actively engage this as part of OSM meeting.

MFL said at OSM all the sessions connect to the IA theme running that day.

10.12 ACTION: Create a large session that would include the integrative activities, mostly WW and data stewardship

10.13 ACTION: SF suggested PB and LG provide some structure regarding IA Thresholds.

10.3 Extreme events and risk management – BV and HG

BV mentioned extreme events IA moving slowly and no time before Zaragoza to do anything.

SF suggested using WW and data stewardship as models, as they are more developed, and leave the other two until after. Use time between now and OSM to build community input.

BV discussed draft of group outline. No timetable. Need 3 or 4 people - WG leaders plus someone from SSC to take the lead.

HG said need to do something at OSM or at a meeting in Chile. HG suggested to start virtually to be ready in one year.

BV said at OSM this will be a forum including a few session and supporting connection between them afterwards.

Risk management part requires different approach. Discussed link between early warning systems and risk assessment. Final goal of this activity is IPCC report on extremes.

10.14 ACTION: HG, BV, SF, LvG to decide how to energize this IA - aim to use OSM as focal activity.

10.4 Data stewardship

ICSU has two groups on data and Future Earth is setting up one group as well. These efforts should be coordinated. Discussion about large task to address paleo data and develop standards across community. ICSU and Future Earth have or will set up groups to do that. Can help engage and coordinate.

Importance of coordination and awareness of each other within and outside PAGES to avoid duplication.

LvG said we have now signed/endorsed this larger document by ICSU so we are on same line as international community.

Discussion of Linked Paleo Database (LiPD) by McKay and Emile-Geay, which has a structure to organize data that can accommodate wide range of data PAGES deals with. DK said terminology aspect of LiPD will be discussed at workshop in Boulder next month. LiPD structure is being used to contain the 2k dataset.

Data stewardship should be included in applications for WGs and WG annual reports (DK).

The community should know more about data stewardship and LiPD effort.

10.15 ACTION: How do we better inform community about Linked Paleo Database? *(Addendum after SSC meeting: Workshop report, p47, Tipping Points magazine good start, more to come via EarthCube's LinkedEarth connection.)*

10.16 ACTION: DK, HG, LVG to continue to implement Data Stewardship action items.

10.17 ACTION: IPO to modify WG report and WG application form to include: data stewardship, explicit request for identifying liaison, identification of ECR on steering committee. *(done)*

10.18 ACTION: IPO - policy on data on PAGES website needs to be refreshed. *(done)*

11. Stakeholders

PG spoke about the transition from core funding to an engagement stakeholder joint-funding model. He said Australia seems to be leading. Should come up with partnership funding?

General discussion on stakeholder engagement and if it is an important criteria for new working groups. Everyone struggles with stakeholder engagement.

PB mentioned difficulty of finding global stakeholders. Local and national more willing.

HF mentioned some proposals don't understand what a stakeholder means.

SF said perhaps better to let stakeholder engagement grow organically.

11.1 ACTION: July webinar announce OSM to Future Earth. *(done, August)*

11.2 ACTION: Stakeholder analysis for PAGES. *(Addendum after SSC meeting: on hold)*

12. PAGES products and communication

12.1 PAGES Magazine

Discussion on next issue Tipping Points (guest editors C Turney, C Fogwill, R Jones, T Lenton) and following issue on climatic and cultural change (guest editors CL, JW, LZ). No concrete decisions on titles after that but have many ideas. (Full list in agenda.)

Encouraged anyone motivated about pushing an idea forward to be a guest editor.

Discussion about magazine process – start process six months in advance, contact potential authors, guest editors, define content. Have gone from three small magazines per year to two larger ones.

Not peer reviewed. Guest authors check the science. Want whole paleo community to be able to understand the language. Magazine used by teachers, so topics need to be interesting too.

Call for ideas for spring (northern hemisphere) 2017. General discussion about a biodiversity issue. SF said could contribute as long as second issue of 2017. Could include aquatic biodiversity. How to inform ecological theory etc.

12.1 ACTION: LG to scout for interest for biodiversity issue and report back to LvG by July 2016, after her other special issue under control. MK, PG and SF also expressed interest in working on this issue.

ME asked about integration with Future Earth. Had an IGBP joint issue discussing topics from both perspectives and that was one model that worked, but not sure now is right moment to do something like that again.

12.2 ACTION: A Future Earth Integration magazine? ME and LvG to discuss.

MK suggested a data issue. Proposal for special session at OSM. If we have some basic agreement, we could scope it during that session and see if beneficial. LvG said magazine can be very flexible.

12.3 ACTION: MK and LvG to discuss Big Data in a Paleo World possible issue.

LZ asked if we have had anything specific for proxies. LvG said magazine is usually more specific, on one type of proxy. LZ suggested isotope proposals in data collection community. Suggested with the right framing it could work.

12.4 ACTION: LZ and LvG to further develop idea of proxy issue?

12.2 Communications

Discussed need for WGs to contact IPO in advance if have a great paper coming out. SSC WG liaisons encouraged to remind their groups of this promotional service. IPO and Future Earth can write press releases if have enough warning. Past collaborations have worked well, so this is a good opportunity.

12.5 ACTION: Liaisons to remind WGs that IPO can help promote upcoming products.

AW gave short presentation of past 16 months of PAGES' communications.

DDoS attacks altered the number of hits on website (Russia and China moved into top 3). USA still top number of subscribers in People Database.

Discussion on finding US lead authors of articles. Can be done manually.

12.6 ACTION: AW to go through Product Database, look for lead authors from US for report.

Deadline June. (done)

12.2.1 Young Scientists

Discussion about possibility/need for early-career researchers on SSC. A lot of organizations now include early-career researchers (ECR) on SSC. To be discussed further at YSM.

12.7 ACTION: Email database pointing to website entry re: young scientists.

12.8 ACTION: IPO to define ECR in e-news perhaps? (done)

12.9 ACTION: Further discussions on dedicated PAGES ECR group to be held at OSM.

12.2.2 PAGES Survey

The outline for a PAGES survey was sent to the SSC for input. Are the questions suitable?

The survey should be adapted to be beneficial to our funding plans and external review. It should be short (five minutes). Bern Uni provides survey options so wouldn't have to pay for external help with design.

12.10 ACTION: Create a PAGES survey team. (done)

13. Upcoming meetings

13.3 EGU and AGU

Discussion on who will be at the AGU and PAGES sponsored sessions.

13.1 OSM/YSM

BV emailed his presentation before the SSC meeting and went through logistical details.

Social events: soccer, ice breaker, congress dinner.

2 Outreach events – What do we know about climate change (round table event)? Plus Documentary about global change (to be decided)

13.1 ACTION: IPO to remind the SSC members that they cannot attend the OSM/YSM post-meeting excursion because the SSC meeting is taking place then. *(done)*

13.2 ACTION: IPO should invite the leaders of the WGs to favor the OSM/YSM for their session (instead of EGU). *(done)*

13.3 ACTION: IPO Should invite the WGs that do not have a specific session at OSM/YSM to present their activities in another session or in the open session. OSM/YSM must showcase all the PAGES WG activities.

13.1.3 Fundraising

IGBP funding to be used for attendance of ECRs. Discussed need for additional funding to allow for maximum attendance. Would be important if SSC leverage money for specific countries.

13.4 ACTION: SSC members to approach funding bodies in their own countries.

13.1.4 Ideas for plenary speakers

Discussed need to highlight Integrative Activities (IAs), so people involved in those four groups encouraged to suggest relevant names.

4 sessions 8 talks. 11 speakers – Spanish speakers also needed. Speakers should not be related to sessions. Plus plenary talks should have overarching themes so speakers don't go missing before their other sessions.

The session timetable has not been circulated yet.

13.5 ACTION: List of invited speakers' deadline 15 June to come from SSC for OSM. *(done)*

13.6 ACTION: MFL to contact speakers regarding OSM. *(done)*

13.2 SSC Meeting 2017

BV outlined the possibilities for location for the SSC meeting after the OSM. Either stay in Zaragoza or travel a short distance.

Stay in Zaragoza - 60 Euros each for hotel and 30-40 for food.

Jaca in Pyrenees. These two hotel options are in town. Cheaper in Jaca than Zaragoza.

Three other Pyrenees locations.

Old military garrison, 3235 Euros

Monastery 8660 Euros.

Panticosa 5165 Euros (high up in mountains). With these locations you are there, no option for anything else.

13.7 ACTION: Decision to be made on location. *(done)*

13.8 ACTION: AA invites the SSC to hold a coming meeting in Ethiopia in 2018.

14. Future Earth (Kari Raivio)

14.1 Recent developments in Future Earth

KR gave a PowerPoint presentation on history of Future Earth, plans for future and Health KAN.

Discussed Open Network (virtual network, Erik Pihl responsible) and Future Earth Media Lab (new ways of communicating to help scientists transmit findings, based in Stockholm, Owen Gaffney contact).

14.2 Core Project Governance

MFL discussed the regular webinars PAGES attends with discussion about data from secretariat, topics to do with KANs etc. This information going through to Core Projects (CPs). Has been one webinar about capacity development. Several letters of communication. A lot of information is coming through emails. How do we deal with all this information and requests? What should go to whom? Should we distribute to SSC or whole community?

Discussion on KANs and how they are set up, who decides on content and membership.

No KAN has been launched yet.

Who in our community would be motivated to lead something? KR said CPs and IPOs are an information exchange unit. It wouldn't be the whole CP that gets involved with KAN - just a certain part. Flexibility should be exercised.

Discussed which KANs PAGES will be involved in (Oceans and Natural Assets).

PG discussed his involvement with Natural Assets KAN to date.

MFL mentioned PAGES has several groups contributing to IPCC, and then also asked to contribute to Future Earth. Feel it is doubling the effort. Unclear how to proceed in efficient way.

Discussed need for someone representing PAGES to be at KAN meetings.

14.4.2 Ocean KAN

HF discussed upcoming one-day workshop in Bern to define a Belmont Forum Research Action on Sustainable Ocean. Ocean is one part where we have experience. Future Earth Executive Committee member responsible for Ocean KAN is Corrine Le Quéré.

Discussed the planned workshop on 29 June and who could attend.

14.1 ACTION: HF to contact Samuel Jacquard to attend Ocean KAN meeting in Bern June.

14.4.3 Other KANS and 14.5 FTIs and Clusters

We had some representation here - E3S meeting in February. Bruno Wilhelm went, but E3S not interested in paleo. Haven't heard much about E3S – seems to be going towards a KAN and not as a cluster.

MFL had phone call with Anne-Helene Prieur-Richard about Natural Assets KAN, discussing how we could contribute as PAGES to IPBES. Looking for indicator of biodiversity. Issue about regional and global.

14.5.1 IPBES

IPBES needs Regional, sub-regional, global indicators. PAGES can provide a long-term perspective.

The challenge for PAGES to work out what indices could provide relatively quickly as IPBES underway. Shall we develop indicators? Use case studies (e.g. Dearing or PG or Erle Ellis)?

HF: Will this end up in KANs?

KR: No, set up to get something going. They were not meant to be long-term projects. Would be surprised if develop into KAN.

HF: What PAGES can do is forward IPBES calls for experts to relevant working groups.

14.2 ACTION: IPBES and IPCC call for experts - send to community. (done)

15. WCRP Update (David Carlson)

DC presented talk for UNFCCC in Bonn later that week. UNFCCC is a stakeholder, as are IPCC. Discussed IPCC Special Report on 1.5C.

DC showed the Ed Hawkins, University of Reading, [graphic](#) of monthly average global temperature rapidly approaching 1.5 degrees - no precedent for what happened in past 7 or 8 months.

15.1 ACTION: Put on PAGES social media asap. (done)

General discussion:

- building connections between PAGES working groups and WCRP Grand Challenges.
- CMIP5 will not be ready to inform 1.5°C special report.
- Connection between PAGES 2K and WCRP-CLIVAR. Town Hall in China.

15.2 ACTION: PB to ask for participants list at CLIVAR meeting. *(done)*

15.3 ACTION: Ask Nerilie Abram if she will be at CLIVAR meeting? *(deadline passed)*

15.4 ACTION: PB sent Town Hall ideas for the CLIVAR conference in September via email 23 May. Do we pursue? *(done)*

Short discussion on Grand Challenges.

15.5 ACTION: DC to ask if Grand Challenges meetings are open.

MFL said PALSEA group, C-PEAT and OC3 put in contact with new Grand Challenge. Others said didn't know something going on in WCRP, they will contact.

PB and MK suggested Interglacials and CVAS groups too.

15.2 Report JSC37

Had some discussion who is best person to replace Ayako.

CLIVAR science steering group and panels. Important to advertise it.

15.6 ACTION: Advertise CLIVAR steering groups and panels. Spread information. *(done)*

PB: Nomination to panels done by panel themselves. No paleo person at moment.

HF: Go on WCRP webpage and check panels.

15.7 ACTION: Check WCRP page and advertise.

16. Any other business

Relationships/partner requests discussed.

16.2 PAGES-INQUA

General discussion of INQUA, led by MFL, regarding involvement in YSM; working together as opposed to competing; INQUA in Africa; possibility of co-sponsored meetings; the different structures of the two organizations and the meeting in June with Allan Ashworth (current head of INQUA).

16.1 ACTION: Sheri to scout options.

16.3 PAGES-GEOTRACE

LZ would like to strengthen link for workshop when contacting GEOTRACES.

16.2 ACTION: LZ to contact.

Meeting closed 18:36