

LGP SCIENCE STEERING COMMITTEE MEETING
9am, Tuesday 14 March 2006, NIWA, Wellington

PRESENT:	Megan Balks	University of Waikato
	Vonda Cummings	NIWA
	Allan Green	University of Waikato
	Jenny Webster-Brown	University of Auckland
	Clive Howard-Williams	NIWA (LSSC Chairperson)
	Shulamit Gordon	Antarctica New Zealand
	Dean Peterson	Antarctica New Zealand
	Ian Hogg	University of Waikato
	Roberta Farrell	University of Waikato

Actions from LSSC Meeting

LSSCer	Action Item	Status
Shul	For the April Board meeting, collate from the LGP scientists supported at Cape Hallett two sentences of the main achievements of their event.	
	Follow up with Italians re Argos installment	
	Ask Diana Wall for a comment on her group's achievements at Hallett	
	Post summary of LGP achievements on LGP website	
	Find LTERs model and present to LSSC for discussion	
	Update May 2003 science overview, circulate to LSSC, circulate first draft of second edition to LGP community before Wellington workshop.	
	Contact the SCAR organisers to find out who has registered for the LGP workshop to date.	
	Contact people directly to find out if they will be attending the SCAR LGP workshop or not.	
	Make the LGP logo available for use in presentations.	
	Ensure AWS and baseline data is put on the LGP website as soon as its available.	
	Link all LGP-related metadata to the LGP website.	
	Circulate list of funds pledged to the special edition, to check the status of these pledges.	
	Invite people who are interested in being on the LSSC to contact her.	
Dean	Look into likelihood of getting a spot to present the LGP as an international framework to COMNAP.	
Megan	Give Shul information on the ANTPAS work	
Clive	Give Shul the EBA activities that are linked with IPY	
Allan	Send Shul responses for key question questionnaire	
Vonda	Ask the Italian marine contingent if they are attending the SCAR LGP workshop.	
All LSSC	Send Shul your two sentences on your LGP main achievements	

1. Recap on past season's work at Hallett:

- Ko66 Craig Marshall: 3 pax supported for approx 3 weeks continuing fish gene work and starting terrestrial nematode research with a student. Further information not available at time of the meeting.
- Ko24 Allan Green: 5 pax supported in two 3 week periods. Got to some new sites for moss and lichen collections. Continued photosynthetic work from previous years. Collaborator from UK, Peter Crittenden, continued with nitrogen transfer work.
- Ko21 Roberta Farrell: 3 pax unable to get into Cape Adare as planned. Undertook sampling at Cape Hallett for fungi research
- K122 Phil Lyver: 2 pax supported for 5 weeks continuing studies on the dynamics of the Adelie penguins.
- Ko81 Ian Hawes: 3 pax supported for 2 weeks. Sampling of ponds remote from Cape Hallett. Continuation of work undertaken in the first year of Hallett.

2. General overview of work over three years at Hallett:

- A summary paper was presented showing which groups had been supported at the LGP camp at Cape Hallett over the past three seasons. This outlines major achievements and some recent outputs.
- Committee members each gave an outline of the progress of their own events.
- The summary, including additions from the LSSC members will be posted on the LGP website in due course.
- A paper is to be presented to the Board of Antarctica New Zealand in April outlining these highlights.
- It was noted that the system at Hallett worked well whereby the scientists could arrive at the camp, get on with their work and leave without having to deal much with camp set up and maintenance.
- The importance of the AWS remaining at Hallett was noted. There is currently a verbal agreement between the US, NZ and Italy that it will remain there and continue to be downloaded and maintained. The Italians are looking to install an Argos system on it so it can relay real-time weather information.

Shul: For the April Board meeting, collate from the LGP scientists supported at Cape Hallett two sentences on the main achievements of their event.

Dean: Ask Diana Wall for a comment on her group's achievements at Hallett.

Shul: Follow up with Italians re Argos installment

Shul: Post summary of LGP achievements on LGP website

3. Review of key questions:

- The 8 key questions were presented with the collation of responses from LGP PIs indicating which key question they were addressing and how.
- Although only one site has been visited, still able to compare with other sites visited further south during previous work.
- Weakness of the LGP is that if some programmes don't get funding, they won't be able to visit a site (e.g. The NIWA marine programme).
- Strength of the LGP:
 - a. Provides cohesiveness to smaller, independent projects. This was a main aim when the LGP was set-up, so it is being achieved.
 - b. Gives a good framework to plan ahead (especially as there is a long lead time between applying for support and actually getting into the field).
- Noted that local variability within sites may be more significant than the variability imposed by the latitudinal gradient.
- Identified people whose disciplines would work well in the LGP framework, but who have not proposed to work in the future LGP site. These are: Craig Cary, Roberta Farrell, Ashley Sparrow (though these are named in a joint project with some links to the Darwin work), Phil Novis and Sean Fitzsimons.
- Discussed the key questions and their order and proposed some minor changes. The key questions as they stand now are (with changes in italics):
 1. *What aspects of and to what extent* does ecosystem structure and function (diversity/complexity) change with latitude, *and why?*
 2. What is the role of persistent, large-scale ice structures in defining community composition along Victoria Land (e.g. Drygalski ice tongue)? *[moved from being question 3]*
 3. How do ice dynamics (e.g. movement, melt, accumulation and ablation) influence the relationship between solar radiation and primary producers?
 4. How does climate affect the availability and composition of free water and how does this change in space and time?
 5. How does climate affect the predictability, persistence and extent of sea ice cover along the latitudinal gradient?
 6. How are key marine biological processes (such as respiration, photosynthesis and reproduction) influenced by sea ice *condition?* *[moved from being question 8]*
 7. To what extent does soil development (e.g. degree of weathering, carbon content and nutrient accumulation) change with latitude and therefore influence terrestrial ecosystems?
 8. To what extent are past conditions along the Victoria Land coast preserved in paleoindicators (e.g. glacial, lacustrine and marine cores, and biological records)?

- The committee was asked if the key questions were actually being useful – were they being used? There was a full agreement that they were as they gave focus and direction to the LGP and the projects working within the framework.
- Noted that there is a variability between years, so question if 2 or 3 years at a site is enough. Long-term AWS records at each site will be able to help us determine the extent of this variability. Plus, long-term records from the Dry Valleys LTER should be able to help reference this variability.
- Recognise the need to be able to move about within one LGP site in order to reduce the impact of local variability within a study site.

Allan: Send Shul responses for key question questionnaire.

4. Direction of LGP:

- Agree that the project as a whole is heading in the right direction.
- Have achieved a lot in the past three years.
- Need to look into linking the LGP with IPY if a benefit can be gained.
- Questioning if we are missing the area of anthropogenic impacts on the environment. The Italians do a lot on this topic.
- Trying to identify areas of work that are missing. Availability of free carbon? Could be covered by Ashley Sparrow. Megan has samples from Hallett that could be used to study this.
- LTER has a hypothetical model that synthesises the different aspects of the ecosystem and shows what data is needed.

Megan: Give Shul information on the ANTPAS work

Clive: Give Shul the EBA activities that are linked with IPY

Shul: Find LTERs model and present to LSSC for discussion

5. Review of May 2003 Science Overview

- Since a lot of this needs updating, agreed that Shul would update the 2003 version then circulate it among the LSSC for comment.
- First draft of this second edition will be circulated to LGP community before the Wellington workshop so comments and suggestions on this can be raised at the workshop.

Shul: Update May 2003 science overview, circulate to LSSC, circulate first draft of second edition to LGP community before Wellington workshop.

6. Further scientific international collaborations

- To be identified at the LGP workshops

7. Links with EBA

- Note that the EBA science plan is on their website (go to Links page on LGP website)
- LGP links with EBA most specifically under EBA objectives 4 and 5.
- Note that LGP could apply to SCAR for funding of LGP workshops.

8. Format of LGP workshops at Wellington Conference and Hobart SCAR conference

Wellington:

- Present the revised key questions for global comments, but don't want to get into word-smithing.
- Present the responses to the questionnaire on the key questions.
- Ask if we're measuring all that we need to be? Are we doing the 'baseline research' that's needed?
- Give a reminder of the importance of the metadata and the updates on the LGP website.
- Would like to see a mini-presentation (5 minutes) by the key players in LGP to show what they've done and plan to do in the future. This will give people an idea of the bigger picture of what is involved in the LGP and how people fit in. This was done at the LSSC meeting and proved to be very useful.
- Present plans for the Darwin work.
- Talk about IPY and LGP.
- Identify new groups who may want to work under the LGP

Hobart/SCAR:

- Need to find out who will be able to come to this meeting if it is to work. No point having it if its just the NZ contingent. Must decide shortly if we are to go ahead with this or not.
- People we know of who are going so far are: Catherine Beard (for Allan Green), Jenny Webster-Brown, Megan Balks, Jackie Aislabie, Ian Hogg, Mark Stevens, Angela McGaughran (student), Vonda Cummings, Clive Howard-Williams, Leo Sancho, John Priscu, John Gibson, Dana Bergstrom, Andrew Martin (student), Nancy Bertler, Narelle Baker (postgrad), Jim Bockheim.
- Decided that presenting the LGP to the national programmes is best done during COMNAP than during the science workshop.
- Format could follow the Wellington workshop to get input from the international community. Need to demonstrate links with EBA.
- Need to address how we bring more international scientists into the LGP and how we make the brand of LGP more international.
- LGP-related talks/posters during the open science conference to relate work to the LGP key questions and use the LGP logo. Especially need to give the LGP more coverage if there is no workshop.
- Shul will be presenting a poster of the LGP and its links with EBA.
- LGP's link with EBA needs to be raised at the workshop. How can these links be strengthened?

Shul: Contact the SCAR organisers to find out who has registered for the LGP workshop to date.

Shul: Contact people directly to find out if they will be attending the SCAR LGP workshop or not.

Vonda: Ask the Italian marine contingent if they are attending the SCAR LGP workshop.

Dean: Look into likelihood of getting an spot to present the LGP as an international framework to COMNAP.

Shul: Make the LGP logo available for use in presentations.

9. Baseline Data

- Cape Hallett AWS data from Dec 03 to Jan 06 is available on the LGP website
- Cape Hallett soil moisture data is being processed and will subsequently be on the LGP website.
- Darwin AWS and soil moisture data is being processed and will subsequently be put on the LGP website.
- A summary of the Darwin AWS data will be on the LGP website shortly.
- Four completed baseline data sheets from Hallett are available on the website. Several more have been submitted and will be available on the website shortly.
- Some LGP-related metadata is available through the LGP website. More is to be linked shortly.

Shul: Ensure AWS and baseline data is put on the LGP website as soon as its available.

Shul: Link all LGP-related metadata to the LGP website.

10. Status of Antarctic Science special edition

- 17 papers have been submitted and 5 are pending submission. All submitted papers are in various stages of review.
- The LSSC were asked to give prompt responses to the Editor's office on review matters.
- The map to be included in the overview chapter will be a generic one of the Victoria Land coast with the LGP sites given. Any site-specific maps needed for other papers need to be supplied by the author of the papers.

Shul: Circulate funds pledged to the special edition, to check the status of these pledges.

11. Other Items

- The matter of LSSC membership was raised. Members were originally supposed to be on the committee for 2 years with an option to extend for 2 years. The committee agreed to roll aside if anyone expressed interest in being on it as they recognise the need for new people to be able to join if they wish.

Shul: Invite people who are interested in being on the LSSC to contact her.