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H.B.S. Womersley and students

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Editor's Corner

Kyatt Dixon

I am once again pleased to present the ASPAB newsletter, this issue dedicated to founding member and president, Bryan Womersley.



Inside this issue is a wealth of news including a run down of the 2010 ASPAB conference and details of the AGM where numerous important issues were raised. One outcome of the AGM was a reshuffling and election of committee members. Congratulations to Joe Zuccarello who takes the place of Martina Doblin as ASPAB secretary, and to David Weller who is the new ASPAB student representative.

Also in this issue Lucy Hurrey shares her experiences and personal highlights from the Rottneest meeting in her conference report and Bill Woelkerling reflects on the life of the late and great H.B.S. Womersley including details of his voluminous contribution to Australian phycology and ASPAB. We also have a feature article by Sabina Habib discussing the utility of algal extracts in fighting human diseases including leishmaniasis.

Please take a moment to look over the details of the upcoming ASPAB conference. I'm sure this will again be a real kicker of a meeting. Also note a number of very interesting workshops and conferences being held over the coming months. Of particular interest to those involved in molecular-assisted alpha taxonomy may be the 4th International Barcode of Life Conference that will be held in Adelaide only two weeks after the ASPAB meeting and co-organised by our own Fred Gurgel.

Thank you to everyone that contributed to this issue of the ASPAB newsletter and I continue to encourage members to contribute to upcoming issues. All the best and happy reading.



President's Message

Alecia Bellgrove

Well it has been a tumultuous start to the year with what has felt like a constant bombardment of natural disasters: the floods throughout Qld and Vic, cyclones in Qld, earthquakes in Christchurch and Japan, and the subsequent devastating effects of the tsunami and damage to the nuclear reactors in Fukushima. Many of our members have been affected either directly or indirectly by the tragedies that have ensued from these disasters and our hearts go out to you all. The situation in Japan is particularly dire and broad-spread and will also have long-lasting consequences for the research of our phycological colleagues on the Honshu coast. On behalf of ASPAB I have written a letter of support to the president of the Japanese Society of Phycology.



We have also lost a great Australian phycologist this year, with the passing of Bryan Womersley, although his contribution to our understanding of Australasian seaweeds will live on eternally. Thank-you to Bill Woelkerling for the tribute in this issue.

On a more positive note, Slobodanka and John have been working hard behind the scenes to organise the ASPAB conference for this year. It will be held in Queenscliff (southwest of Melbourne) 7 - 10 November. See this issue for more information and keep an eye on the ASPAB website for updates. And thanks again to the organisers and sponsors of ASPAB 2010 at Rottneest Island, WA for another terrific meeting, and congratulations to our student prize winners.

I attended the Women in Science and Engineering (WiSE) Summit at Parliament House on the 11th April and have included some info on this in this issue also.

Thanks again to all those who have contributed to this newsletter and to Kyatt for putting it all together. I look forward to seeing you all again in Queenscliff in November. Student members remember there are travel grants you can apply for!



ASPAB AGM Minutes

Rottneest Island Country Club, WA
Wednesday November 17th, 2010

Minutes recorded by Tracy Farr

ASPAB President Alecia Bellgrove opened the meeting at 4:50 pm.

In attendance: Joanna Jones, Margaret Clayton, Felicity Hart, Judy Broom, Kyatt Dixon, David Weller, John Huisman, Di Walker, Kiernyn Kilminster, Lucy Hurrey, Rainbo Dixon, Gareth Belton, Roberta Cowan, Alecia Bellgrove, Tracy Farr.

Apologies were received from Martina Doblin, Fred Gurgel, Joe Zuccarello and Wendy Nelson.

The President's report was presented by Alecia, during which were added congratulations to Erasmo Macaya for gaining his PhD and position in Chile. The ASPAB Facebook page was discussed as a potential way of attracting younger members. The matter of lining up a venue and organising the committee for ASPAB conferences at least two years in advance was discussed in some detail. Di Walker queried whether Fred Gurgel was prepared to host a conference in Adelaide in the next few years, and it was suggested that this be followed up with him. Di urged for more notice to be given to organisers, but also to allow delegates to gain funding to attend. Alecia will ask John Beardall and Slobodanka (ASPAB 2011 organisers) to provide estimates of their budget and indicative costs ASAP.

IPCC: Alan is confident of a good response to the bid to hold IPCC in Sydney.

FASTS: Suggested that we should/could get more active with FASTS; link to government, in particular. Jo will attend this year (2010).

Treasurer's report

Jo (Australian branch)

The Australian branch went into the red again, but wouldn't have done if had had accounts from last meeting within financial year. These are still not finalised (at time of AGM), but look like giving a profit. Only one student grant was paid during the year.

The increase in membership is due to increase in student membership - ASPAB presence on Facebook, perhaps, may have influenced this.

Financial report (AUS)

The main reason accounts went into red is that the Australian branch paid for notecards, while not much income had been received from notecards. The term deposit provided welcome additional income.

Tracy (NZ branch)

The NZ branch in contrast reported a tidy income from sale of notecards (paid for by Australian branch). One student grant was paid from NZ funds.

John Huisman raised the question of ASPAB past president Lindsey Zemke-White - it was reported that ASPAB is on the list of creditors, however we don't know how far down the line we are.

Election

Alecia dissolved the current committee, in order that elections might be held. Margaret Clayton stepped in as chair.

Roger H. did not get back to us, so we are unsure whether he wants to stand, so he is a nomination (student member) pending agreement from him.

For all offices other than student member there was only a single nominee.

There were two nominees for student member (David Weller, Roger Huerliman).

Di Walker queried: will each of the students nominated be a student for whole tenure of office? David said he is likely only a student until July 2011. It was agreed that we will rely on David to notify when he ceases being a student.

Election was held for office of student member. Teller for the election was Shion.

Result: David (11 votes); Roger (3 votes); 1 abstain (1 vote).

New student member is David Weller.

Margaret declared all other committee members elected, and resigned from the chair, which Alecia resumed.

FASTS AGM

Alecia: Jo agreed to represent ASPAB at FASTS AGM if we have some discussion about the message we want to take to FASTS. This needs to be done at the conference because FASTS is in two weeks. We have given a brief report to the Aquatic cluster rep. FASTS has membership from societies, in clusters. ASPAB, ASL, AMSA, and ASFB make up the Aquatic cluster. Francis [Aquatic cluster rep] requested a brief (few lines) report from ASPAB which she will present to the FASTS AGM. It is unclear how much involvement we have, or need to have, or will have, beyond this report presented by Aquatic cluster rep (i.e. Membership, Facebook, IPCC bid).

Margaret: is there information coming in to the society?

Alecia: President and secretary get them (circulated if asking for input, via ASPABlist)

Jo advised that an agenda for FASTS AGM had not been provided. She also advised that (when she last went

to FASTS AGM, years ago), each rep was asked to respond to a sort of "what are you most concerned about?" question.

Alecia asked members what they see as most pressing issues for FASTS from ASPAB's perspective:

- Di: Marine communities are at risk, so EPBC (as raised on first day of conference) - no marine ecological communities are listed. Ramone doesn't think there are any marine macroalgae on the list. Di said there are some aquatic plants, some "strange" seagrasses, on red list. Ramone thought someone had suggested a *Sargassum* species.

- Di: good thing to raise could be risks to marine communities across the board.

- It was suggested that we should be raising higher-level issues, rather than specific or local issues (e.g. problem of eutrophication, rather than *Lyngbya* on Rottneest).

- Poor state of funding for taxonomic research; absence of jobs; we could link those two things in, highlighting that, e.g., we are loathe to propose species for listing as critical status because of lack of taxonomists.

- EPBC requiring us to act when there are no taxonomists to act is ridiculous.

- Di suggested ocean acidification as an issue to raise.

Alecia reminded us that Fred raised an issue earlier in year: get more active and more involved to have a rep at AGM (FASTS), and also Science meets Parliament (SmP). Jo is going in 2010. Alecia is happy to go in 2011. It would make sense if someone in Canberra was prepared to go. We need to get this more on the radar and plan around it.

Alecia nominates herself to go in 2011.

Alan Millar to go in 2011.

We can send two reps. Fred and Michael Borowitzka went two years ago. Jo: doesn't a nomination imply payment? Alecia: Fred raised issues and wrote a report. If we send representatives we should be organised, be clearer about what we want the message they take to be, and about whom we want them to be paired up with (parliamentarians).

Note: Alecia will find out when the next SmP is going to be (first half of year?) - and we will try to get email going through the ASPAB list about what the message will be, and who to be paired up with. It would be good to send two delegates. Alecia is happy to go, depending on when it is. If we send two delegates, would we have to pay for two delegates? Fred raised the question of financial support, and at the committee meeting on Monday it was suggested that we ask ASPAB to cover rego, but delegates cover transport costs (moved Alan, seconded Tracy). It is a two-day event. Jo: some people are happy to pay for themselves. Alecia: but if they are representing us as society... we can choose not to send two, can

send one.

Judy: suggest we could contribute up to \$200 to transport and accommodation. Or total figure.

It was noted that ASPAB is relatively flush at the moment; ideally we would be supporting students more than we are, but that depends on students applying - so funding SmP wouldn't be taking food from students' mouths.

It was suggested that we need ways to make student funding more obvious; but no suggestions were forthcoming. David suggested: in emails or newsletters, we should mention that the society can support more than one or two students so that people realise that competition is not a problem.

Science meets Parliament: accept Alan's offer to go to SmP, on the basis suggested.

Motion: that ASPAB covers registration for SmP, and that delegate covers all other costs.

John proposed accepted; Di seconded.

Vote by show of hands:

Yes: 13

No: 1

Abstain: 1

Motion carried.

ASPAB needs to get more strategic

Alecia: we should be looking ahead 5 years. A way to move forward is to establish a small working party to work on strategic plan, to produce this as a one-page document that is easy to take in. This could be circulated via the ASPAB list for discussion. Fred proposed this idea; suggested working party = Fred, Alecia, Joe Z. Called for others interested; no takers.

John asked: what are the issues? Do we want to be a big or small society? What was Fred's idea?

Alecia: around membership; involvement in government policy; what are our near future targets; 5 year vision; promote phycology and aquatic botany is the broad vision, but what's our specific vision to achieve in 5 years; what specific things can we do to put this in place?

Engagement of students in ASPAB and in phycology and aquatic botany in general.

Margaret: strategic vision should agree with the vision of the people who set ASPAB up.

Kyatt: we could promote IPCC as a 5 year goal.

It was agreed that it would be great to have a healthy, invigorated society in time for IPCC.

Publication prize

We only had a couple of nominations, so won't be awarding this year. We have asked people to submit their own publications. Do people think this is a good idea? What can we do to get more involvement? People are too busy!! Those keen on self-promotion will find the time... while students may perhaps be less inclined to nominate themselves. Erasmo is able to put publications up on the web as they come through. Jo notes that it's a pity we can't have this idea of published work being on website without it being for a prize.

Alecia: we can - both for promoting work, recognising work, for students to use as CV-building, etc. If nothing is worthy of a prize, then we are not obliged to nominate for that.

One option, moving forward:

Target a student member and ask them to collate list of publications for existing members, to get momentum going, updated. We could waive ASPAB membership dues for the student who does it.

We would require a full reference list of all members' publications to be generated.

For what period? 2009, 2010.

Any author? For inclusion on list: any authorship. For publication prize, they need to be first author.

Books (as well as papers) should be included.

All in favour of a prize: 11

Against: 2

Abstain: none

Motion carried - we continue with the prize.

Action:

Tracy will investigate getting a list generated via NIWA library; then David (as student member, under guidelines above) to pursue, if NIWA library not possible option.

Membership

What can we do to encourage continued building membership?

It was decided to postpone consideration of this to email (ASPABlist?).

Other matters?

No other matters. Alecia thanked all for attending and declared meeting closed at 5:54pm.

ASPAB President's Report 2010

Alecia Bellgrove

Presidency

I'd like to thank Judy Broom for picking up the reins of the presidency whilst I was on maternity leave June 2009 - June 2010.

Memberships continue to increase!

10 % increase in membership

Dues are payable from July 1 each year. Please check with Jo (Aust) or Tracy (NZ and elsewhere) if you are unsure of your financial status

Congratulations

Wendy Nelson has been elected a Fellow of Royal Society of New Zealand.

Kyatt Dixon has had his PhD thesis passed this year.

Communications

- Erasmo has been keeping the website up to date and looking great. Please continue to supply him with images, stories etc. www.aspab.org
- Phil Orr has created an ASPAB Facebook page which is continually attracting more 'friends'
- The ASPAB list continues to be the main avenue for communication between the Executive committee and the membership. New members be sure to subscribe if you want to keep informed. Information on how to subscribe is on the website. Queries about the list should be directed to j.broom@auckland.ac.nz
- Kyatt continues to produce and distribute two great issues of the Newsletter each year. Thanks to those who have contributed and keep the contributions coming

Conferences

- Venue for the 2010 conference was finalised in February, and we appreciate our WA colleagues stepping in and hosting this wonderful conference at Rottneest Island.
- Venue for 2011 has also been confirmed to be in Melbourne district and hosted by John B and Slobodanka.
- We'd like to continue to be able to have conferences organised two years in advance and seek interest for the 2012
- Alan Miller has submitted a bid to host IPC in 2017 and ASPAB has committed to provide support as necessary.

FASTS

Jo (Jones) Kain will represent ASPAB at the 2010 FASTS AGM

Alan Miller has agreed to represent us at the 2011 SmP. We can nominate two members to attend. If interested contact me.

Notecards

Notecards were launched at the 2009 Townsville conference and are available from Jo. They look fantastic!

Thanks

We acknowledge the outstanding job Martina Doblin has done as secretary over the past 6 years and wish her well with her IMOS role.

Financial report - Australian branch

Joanna M Jones

Expenditure exceeded income again this year because we paid for the notecards but have not yet sold many. On the other hand we only paid one student grant and the term deposit rescued us from an overall deficit. Preliminary accounts for the Townsville meeting have only just become available but it is clear that there will be a considerable profit.

Membership

Paid-up members were as follows:

	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10
Full	44	43	44	48	44	39
Student	7	15	22	24	16	22
Retiree						6
Total	51	58	66	72	60	67

2008-9

2009-10

REVENUE

Dues - full members	1320	1325
Dues - student members	231	231
Dues - retired members	0	66
Interest on current account	15.22	0
Conference profit	0	80.00*
Notecards	0	200
	-----	-----
	1566.22	1902
	-----	-----

EXPENDITURE

Incorporation fees	39.7	40.9
FASTS	300	278.96
Student grants or prizes	1334	495
Conference	2968.93	413.00**
Notecards	0	1334
	-----	-----
	4642.63	2562.49
	-----	-----
Surplus	-3076.41	-660.49

Assets Statement

CURRENT ASSETS

Current Account	6667.09	6006.6
Commonwealth Bank term deposit	40152.67	41678.47
	-----	-----
	46819.76	47685.07
	-----	-----
Total increase	-218.88	865.31

* One registration fee less dues paid with conference (Townsville)

** Early payment for Rottneest

Financial report - New Zealand branch

Tracy Farr

This financial report follows from the previous report of November 2009. All amounts are in NZD. 2010/11 has seen a slight drop in membership for the New Zealand chapter, particularly when compared with the heady days of 2008/09 when the Vth APPF conference being held in Wellington in association with the ASPAB annual conference was reflected in high membership numbers. I note particularly the drop-off in full membership; number of student members remains relatively steady over three years, although there is turnover in the members themselves. Four of our current student members are located outside Australasia (Netherlands, Chile (2), India). Income this year has been from membership dues; I note the healthy contribution to income in 2009/10 of sale of ASPAB notecards. Sole outgoing this financial year is payment of \$816 as student travel grant to David Weller to attend ASPAB 2010 conference. The New Zealand chapter holds a single account, at present. It is a Society Current Account which attracts no fees, but nor does it pay interest; three signatories are nominated, with two required to sign for withdrawals. With a larger amount in the account, the local committee could consider placing this in an interest-earning account.

Income and Expenditure Statement (full year 2008/09, 2009/10, plus year-to-date 9th November 2010)

REVENUE

	2008/9 (full year, to 30Jun 2009)	2009/10 (full year, to 30Jun 2010)	2010/11 (part year, to 09Nov 2010)
Dues - full members	600.00	360.00	330.00
Dues - student members	130.00	100.00	**129.84
Dues - unwaged members	0.00	10.00	0.00
Interest on current account	0.00	0.00	0.00
Conference profit	6,612.54	0.00	0.00
Sale of ASPAB cards	0.00	230.00	0.00
	7,342.54	700.00	459.84

EXPENDITURE

Student grants or prizes	60.00	0.00	816.00
Bank fees	0.00	0.00	0.00
Conference expenses	0.00	0.00	0.00
Conference dividend to APPA	3,020.00	0.00	0.00
Officers' expenses	0.00	0.00	0.00
	3,080.00	0.00	816.00
Surplus	4,262.54	100.00	(356.16)

Assets Statement

CURRENT ASSETS

Current Account (ASB)	6,075.66	6,495.66	6,419.50
TOTAL:	6,075.66	6,775.66	6,419.50
TOTAL increase	4,262.54	700.00	(356.16)

Membership

Paid-up members as follows (2010/2011 members as at 09 Nov 2010):

	2008/9	2009/10	2010/11
Full	23	17	13 (14*)
Student	13	12	12
Honorary life member	1	1	1
Unwaged (retired)	1	1	-
Total	37	31	26 (27*)

* 1 member has advised payment is in process at 9th November 2010.

** Payment from international member, to cover \$20 for two years' student membership, when converted by bank came in at NZD\$19.84

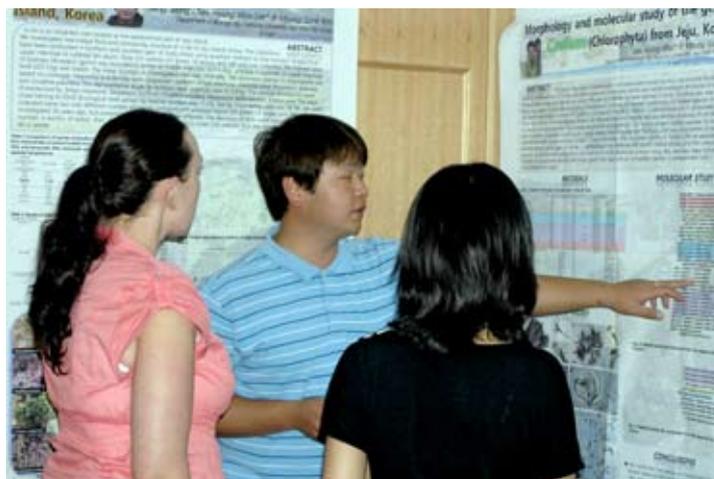
ASPAB Rottneest Island 2010 - Conference report

Lucy Hurrey
PhD candidate
School of Biological Science
University of Queensland

I was very happy to find myself on Rottneest Island last November for the 24th Annual ASPAB Conference. I always find ASPAB conferences to be really rewarding but this location was particularly exciting. Rottneest Island is a phycologist's playground with an extremely diverse macroalgal flora due to the warming influence of the Leeuwin Current and I'd begun imagining all the potential for snorkelling the moment the conference advertising arrived in my inbox.

I made the trek from Brisbane to Perth and then caught the Ferry over to Rotto. The weather was beautiful and sunny and I ran to the beach as soon as I could dump my bags. I quickly found out that the 'warm' Leeuwin wasn't really that warm, particularly in comparison to my local subtropical Moreton Bay, but it was most definitely refreshing! The conference kicked off later that day with an ice-breaker at the pub. This was a great opportunity to catch up with old friends from previous conferences and meet new people. ASPAB conferences are some of the friendliest conferences I have ever been too. Everyone is so welcoming and particularly supportive of students. The smaller delegate numbers also makes ASPAB conferences less scary for students who have not been to many conferences.

The talks began the next day. The standard of presentations at ASPAB is always high and it's such a welcome change to be at a conference with so many relevant topics. While conferences like ESA are great for expanding your focus, it's nice to have so many algal talks in one place! I appreciate the opportunity to put my presentation skills to practice in such a supportive environment and it's always nice not to have to start my talk with a slide describing what algae are... The plenaries this year were particularly insightful (I really enjoyed Gary Saunders seminar on iBOL) and we had a great turnout of local, interstate and international researchers.



The discussion of research during the poster session. Photo K. Dixon.

After a great poster session, the students (and a few of the more established academics) headed off to the pub for the student mixer. It was very smart scheduling the mixer early on as it allowed some of the shyer students to meet fellow students near the beginning of the conference in a relaxed atmosphere. I often feel that I only really get to know people at the conference dinner which is often scheduled towards the end of the meeting, just before I have to head home!

Most of the delegates took a break halfway through the conference to take a little trip around the Island with a stop for snorkelling along the way. The small bay we stopped at was beautiful with an amazing algal diversity. For an east-coast algal nerd it was a great opportunity to see some of the species 'in real life' that I'd previously only ever seen in books. The bus ride also provided us with a chance for a good chat. As I am not currently in a lab with an algal focus, it's rare that I'm surrounded by people in my field. I really enjoy being able to discuss my work with like-minded people and hear about what's new in the world of algae. I can't wait for Queenscliff this November!



Students enjoying the atmosphere at the student mixer. Photo K. Dixon.

Hugh Bryan Spencer Womersley (19 November 1922 - 16 January 2011)

Bill Woelkerling

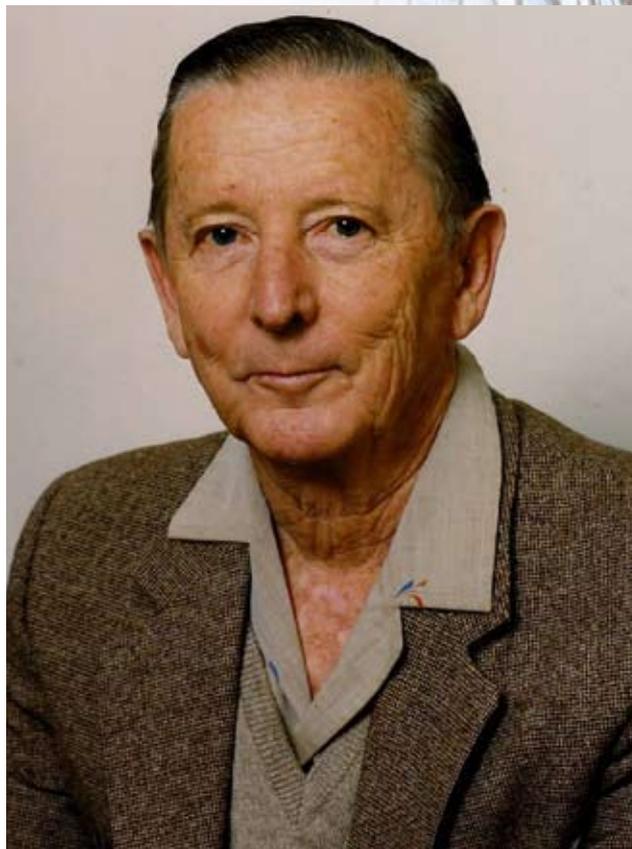
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The death of Bryan Womersley, inaugural President of ASPAB and recipient of numerous national and international awards, marks the close of an era in Australian phycology. Born in Bristol, England, Bryan arrived in Perth in September 1930 when his father accepted a position in what is now CSIRO. In 1933, the family moved to Adelaide where his father took up the position as Entomologist at the South Australian Museum.

Bryan's association with the University of Adelaide dates from 1941 when he started undergraduate studies. His B.Sc. degree was conferred in 1943, and his subsequent degrees (B.Sc. Honours, 1944; M.Sc., 1947; Ph.D., 1952; D.Sc., 1960) also were conferred from the University of Adelaide. Bryan held the positions of Lecturer (1946-1949), Senior Lecturer (1950-1960), Reader (1961-1973) and Professor (Personal Chair) (1974-1987) at the University of Adelaide, and he was appointed emeritus Professor in 1987 before becoming Honorary Associate and Curator of algae at the State Herbarium of South Australia.

Bryan's interests in marine algae were piqued during his third year botany course in 1943, and this initially led to descriptive intertidal ecological studies on the coasts of Kangaroo Island in 1945. He soon realised, however, that scientific knowledge of species of southern Australian marine algae was very confused and very outdated. Consequently, in 1946 his research turned to the huge challenge of determining which species of marine algae occurred in southern Australia and how they could be told apart. This led to his life-long goal of producing a comprehensive, reliable, up to date marine flora for the region.

Being the thorough, meticulous scholar he was, the foundation research for the flora, which resulted in a number of publications, took over 35 years to complete. Volume 1 of his flora appeared in 1984, and the sixth and final volume in 2003, over half a century (57 years) after work began in 1946. Bryan's flora is widely considered by the international



H.B.S. Womersley.

algal community to be the most scholarly and meticulous work of its kind ever published. It is truly a remarkable and monumental accomplishment, especially as southern Australia is one of the most species rich areas of the world.

The algal collections upon which his flora is based are now permanently housed at the Botanic Gardens of Adelaide and State Herbarium. A 75th birthday tribute (including portrait) appeared in 1998 in *Botanica Marina* 41: 1-5, and a portrait and brief biographical information also appeared on p. 176 in an article (*Phycologia* 40: 172-181) honouring the Presidents of the International Phycological Society from 1961-2001. An extended obituary including a complete list of publications is currently being prepared for publication in *Phycologia*, journal of the International Phycological Society.

Bryan is survived by his wife, Alleyene, sons Robert and Peter, and grandchildren David, Rebecca, Melanie and Grant.

Making the moves toward marine algae

Dr. Sabina Habib

Dr.sabinaphyco@gmail.com

Riding on the crest of powerful waves or walking through softer ones on the beaches, one may pick seashells or watch hermit crabs but generally we kick away the seaweed that curls around our ankles and toes. Little do we know that marine algae include some of the simplest forms of primitive sea plant and may hold the key to global health. In Pakistan seaweed is an integral part of the coastal ecology, occurring in an area periodically covered by rising or receding tides along the 1040 km coastline extending from Sir Creek to Gwader Bay. Luxuriant algal growth is predominantly observed during the period from September through March. According to a WWF (2007) report, the most spectacular and influential scientific discoveries from marine resources along the coastline of Pakistan have not yet been fully observed.

While working on my PhD research, I was given an opportunity to study the bioactivity of different red algae (Rhodophyta) from the Buleji coast of Pakistan to evaluate possible pharmaceutical applications. *Leishmania* is a very virulent tropical disease second only to malaria. The cutaneous form of leishmanial disease is a painful skin ulcer disease caused by the parasite *Leishmania major* which is present in many parts of Pakistan and sporadic



cases are seen throughout the country (Mujtaba Khalid 2001, Bhutto *et al.* 2003, Noor *et al.* 2005, Fazaeli *et al.* 2009). The major drawbacks of drugs used to treat *Leishmania* relate to toxicity associated with severe side effects (Sereno *et al.* 2000, Croft and Coombs 2003). These problems prompted the development of new safe and effective anti-leishmanial drugs. Present research deals with the contraceptive properties of 17 species of red algae to determine their inhibitory effect on the viability of the parasite *Leishmania major* by *in vitro* tests, this research conducted for the very first time by the Department of Botany, University of Karachi, Pakistan, and recognised internationally by the award of the gold medal for research.

The most promising organic extracts originate from red algae analysed in this experiment; *Osmundea pinnatifida* with an $IC_{50/72} = 6.25 \pm 0.35 \mu\text{g/mL}$ exhibited potent inhibitory effect; *Scinaia fascicularis* with an $IC_{50/72} = 14.10 \pm 0.20 \mu\text{g/mL}$; *Melanothamnus afaqhusainii* with an $IC_{50/72} = 32.6 \pm 0.20 \mu\text{g/mL}$; and *Gracilaria corticata* with an $IC_{50/72} = 37.5 \pm 0.45 \mu\text{g/mL}$. These algae were found to induce significantly reduced growth of the promastigote forms of the parasite *Leishmania major*. A few other species such as *Centroceras clavulatum*, with an $IC_{50/72} = 57.89 \pm 0.75 \mu\text{g/mL}$, *Scinaia indica*, with an $IC_{50/72} = 59.6 \pm 0.30 \mu\text{g/mL}$, and *Botryocladia leptopoda*, with an



IC₅₀/72h=60.81± 0.40 µg/mL, displayed good inhibitory features. This highlights the antiparasitic nature of Pakistani seaweeds that can be utilized as an adjuvant to chemotherapy. Previous investigations into measuring the antileishmanial potential of marine algae are extremely limited, being restricted to few species with the test organisms *Leishmania donovani* (Orhan *et al.* 2006) and *L. mexicana* (Freile-plegrina *et al.* 2008). Thus there is a lack of such study and the present work provides promising results for a number of local species from the Karachi coast, the first such study in Pakistan.

The boundaries of the biological domain for research are widening rapidly and we believe it is high time that we evaluate more reliable unfamiliar domains from the marine resource

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Dr. Habib in her laboratory

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Women in Science and Engineering Summit: 11 April 2011 at Parliament House, Canberra

Alecia Bellgrove

I was fortunate to be amongst the few hundred delegates who attended the WiSE summit earlier this month in Canberra.

The schedule consisted of:

- Summit launch by Julie McKay, Executive Director, UN Women Australia
- Outline of issues faced by women in science and engineering: Dr Cathy Foley, President, FASTS
- Case studies of what has worked and what hasn't in the science and engineering sector
- Keynote speech by Professor Margaret Sheil, CEO, Australian Research Council, on behalf of Senator the Hon. Kim Carr, Minister for Innovation, Industry, Science and Research
- Concurrent roundtables covering:
 - Improving the workplace /practical tips for managers on gender equity in the research lab and in industry/creating flexible workplaces
 - Attracting school and university students to the physical sciences, engineering and maths.
 - Changing the system - leaders of science and engineering agencies in discussion with the Hon Kate Ellis MP

There were some truly inspirational women talking of their experiences and the challenges they have and continue to face in pursuing their careers in science or engineering. Many spoke of the lack of flexibility for career breaks (e.g. for family) and the negative impact this can have on their careers, particularly when they are reliant on the cycle of soft-money from grants for their salary. There was a feeling that it would be professional suicide to take even their entitlement of maternity leave. They also spoke of the challenges of juggling the costs of regular childcare and additional costs for extended periods to attend conferences etc with maintaining a career, and that in many cases this trade-off meant they missed conferences/workshops etc. There were examples of unequal pay for the same jobs done by men and women and a suggestion that we should monitor entry level positions for any gender biases. Interestingly, Cathy Foley (FASTS president) reported that references that are written for females are generally shorter, with a much greater emphasis on networking skills, than those written for males in science and engineering.

However, there were also some great examples of how institutions and industry are implementing practices

to try and overcome these challenges. For example the Walter Eliza Hall Institute offers grants of up to \$15,000/annum to staff with pre-school age children to assist with childcare costs; several organisations had built on-site childcare facilities for staff; Monash University has a program for academic women to be able to shadow senior staff and have full access to ask questions; University of Michigan has mandatory participation in equity training for all staff; Harvard University offers 1.5 appointments for every woman academic appointed, so if they appoint 2 women to positions that get an additional position for free! Many organisations are also recognising the need to offer flexible working hours as well as flexible appointments (part-time or full-time offerings) with gender balance on panels.

The discussions from the three roundtables were also encouraging, particularly the commitments shown at the Leaders Roundtable. All research leaders agreed to take the UN Women's Empowerment Principles back to their organisations with a view to adopting them and made other significant commitments outlined in the communiqué from FASTS president Cathy Foley below:

UN Women's Empowerment Principles

1. Establish high-level corporate leadership for gender equality.
2. Treat all women and men fairly at work - respect and support human rights and nondiscrimination.
3. Ensure the health, safety and well-being of all women and men workers.
4. Promote education, training and professional development for women.
5. Implement enterprise development, supply chain and marketing practices that empower women.
6. Promote equality through community initiatives and advocacy.
7. Measure and publicly report on progress to achieve gender equality.

If your organisation is willing to adopt the Women's Empowerment Principles, it can do so by signing the CEO statement of support and a brief one-page form, found here:

<<http://www.scienceinpublic.com.au/blog/wp-content/uploads/WISE-Summit-CEO-Statement-of-Support-and-Form.doc>>

There was significant media around the event with the highlights including:

- A front page story and photo in the SMH with Carola Vineusa (ANU) and Lisa Harvey-Smith (CSIRO). Read here: <<http://www.smh.com.au/national/great->

minds-think-alike-nature-demands-greater-nurture-20110411-1db5o.html

- A national ABC 7pm News story featuring Carola Vinuesa, Megan Clark (CSIRO) Cathy Foley (FASTS), and Lisa Harvey-Smith. Watch here: <http://www.abc.net.au/news/video/2011/04/11/3188475.htm>
- ABC News24 interviews with Julie McKay (UN Women) and Cathy Foley. Julie also had an early morning call from Radio Australia.
- An ABC Radio AM-program story featuring Catherine Leamy (University of Sydney) and Anna-Maria Arabia (FASTS). Transcript: <http://www.abc.net.au/am/content/2011/s3187569.htm>
- An AAP story featuring Cathy Foley that ran online in 25 publications. Read here on news.com.au: <http://www.news.com.au/business/breaking-news/female-brain-drain-skills-shortage-hurting-economic-prosperity-chances/story-e6frfkur-1226037085762>
- Front page of the Sydney MX
- An interview on WIN Television Canberra.

I will also circulate via the ASPAB-list the more detailed communiqué with outcomes from all roundtables when available.

Summit communiqué: Research leaders act to stop female brain drain (11 April 2011)

CSIRO, Australia's largest employer of researchers, committed on Monday 11 April to remove barriers to the promotion of highly skilled women and to increase incentives to encourage women to return to the workforce after maternity leave.

These were two of many commitments made on that day by research funders, leaders and employers who came together for the first time at the Women in Science and Engineering (WiSE) Summit in Parliament House, Canberra.

The Summit, attended by the Hon Kate Ellis, Minister for Employment Participation and Childcare and for the Status of Women, discussed how to keep women in science and encourage more young women into engineering in order to boost productivity and equity.

Importantly, the nation's leading research funders, the Australian Research Council (ARC) and the National Health and Medical Council (NHMRC), agreed to changes in how they assess research publications in the grant applications of those with interrupted careers. The ARC committed to extending the period taken into account. The NHMRC this year will consider any nominated five years of an applicant's career rather than simply the previous five years. It has also agreed to monitor gender issues in general.

Further commitments to action made at the Summit include:

- The Australian Technology Network universities have set a performance target that the number of female staff who teach science, engineering and technology (STE) subjects will be in the same proportion as women employed in STE industries (about 16 per cent);
- IBM, a significant employer of scientists and technologists, has agreed to support CSIRO's Science in Schools program;
- The Federation of Australian Scientific and Technological Societies (FASTS), Australia's peak body for science and technology, has undertaken to work with scientific societies Australia-wide to conduct an audit of practices with a view to increasing the participation of women through best practice;
- FASTS will also gather examples of existing practices, programs and policies which have been successful and develop a toolkit to guide the science and technology sector;
- All research leaders agreed to take the UN Women's Empowerment Principles back to their organisations with a view to adopting them;

Other CSIRO commitments include:

- To increase the number of Payne-Scott awards—designed to bring women back to the workforce after maternity leave;
- To report on gender participation within the CSIRO; and
- To remove cultural barriers, and build greater trust and respect within the CSIRO.

Below is additional material provided by the sponsors and organisers.

- WiSE summit material from ANSTO: http://www.scienceinpublic.com.au/blog/wp-content/uploads/WiSE_Summit_ANSTO_EMAIL.pdf
- FASTS Women in Science in Australia report compiled by Sharon Bell: <http://www.scienceinpublic.com.au/blog/wp-content/uploads/FASTS-women-in-science.pdf>
- The Women's Empowerment principles - equality means business, provided by UN Women Australia: http://www.scienceinpublic.com.au/blog/wp-content/uploads/WEP_EMB_Booklet.pdf

Congratulations

A number of ASPAB members recently completed their degrees. Congratulations to Erasmo Macaya, Kyatt Dixon and Sven Ihnken.

Erasmo completed his PhD at the University of Victoria, Wellington, under the supervision of Joe Zuccarello, studying the kelp *Macrocystis* C. Agardh. *Macrocystis* (the giant kelp) represents the most widely recognized kelp genus, forming dense forests in many places both in the northern and southern hemispheres. Despite its economic and ecological importance, phylogenic, taxonomic and dispersal patterns of *Macrocystis* remain unresolved. Using various molecular markers Erasmo studied the taxonomy, connectivity, phylogeography and dispersal patterns of the giant kelp on a global scale and with particular emphasis on the New Zealand and Chilean coasts. His study will contribute to a better understanding of the evolutionary ecology and dispersal patterns of this important alga and thereby provide an important tool for marine ecologists and conservation managers involved in designing networks of marine protected areas.



Erasmo Macaya



Macrocystis growing at Warrnambool. Photo: E. Macaya

Publications resulting from the dissertation:

Macaya E. & Zuccarello, G. 2010. Genetic structure of the giant kelp *Macrocystis pyrifera* along the south-eastern Pacific. *Marine Ecology Progress Series*. 420: 103-112.
Macaya E. & Zuccarello, G. 2010. DNA barcoding and genetic divergence in the giant kelp *Macrocystis* (Laminariales). *Journal of Phycology*. 46: 736-742.

Erasmo recently acquired the position of Assistant Professor at Universidad de Concepcion (southern Chile), carrying out teaching (marine botany, algal ecology) and research (connectivity of kelp populations from Chilean fjords, DNA barcoding, algal ecology, among others). Uni - web page: <http://oceanografia.udec.cl/people/faculty/erasmo-macaya/>

Kyatt completed his PhD at the University of Melbourne, under the supervision of Gerry Kraft, studying crustose red algae of the family Peyssonneliaceae. Red algal crusts play critical ecological roles as stabilizers of substrata, particularly in the tropics. Despite their obvious importance, they are frequently ignored or overlooked in regional algal surveys and ecological studies due to their simple forms and inherent difficulties in distinguishing species. Kyatt undertook extensive fieldwork on the islands of Vanuatu and around southeastern Australia to investigate the species diversity of these little-known algae, discovering that the number of species recorded grossly under-represented the true diversity. Through COI-5P DNA barcoding and detailed anatomical studies, Kyatt revealed high levels of cryptic diversity as well as many anatomically distinct, although previously unknown, lineages, including several new genera.



Kyatt diving in the subarctic Canadian waters of Haida Gwaii - note drysuit and genuine Canadian toque. Photo: N. Jeffery.



An undescribed *Peyssonnelia* sp. from Rottneest Island. Photo: R. Dixon

Kyatt is currently working as a postdoc in the lab of Gary Saunders at the University of New Brunswick, Canada, continuing his research on the taxonomy and systematics of crustose red algae, including the Peyssonneliaceae. Web page: <http://www.unb.ca/cemar/saunders/members/KyattDixon.html>

Sven Ihnken obtained his PhD at Monash University in Melbourne in October 2009 with the great support and supervision of John Beardall. Sven investigated the interactive effects of carbon dioxide assimilation and light intensity on marine phytoplankton. Carbon physiology and uptake is highly variable amongst species and has implications on rising CO₂ concentrations in the atmosphere and aquatic systems. Understanding CO₂ uptake characteristics, needs and energetic costs provides information how primary producers might be affected in a high CO₂ world.

During his PhD Sven found photoacclimation highly variable amongst species. Different species therefore have different capacities to regulate their energetic needs as a response to changes in their environment. *Chaetoceros muelleri*, a planktonic diatom, displayed an exceptionally high affinity for bicarbonate, even under very low light conditions, showing the efficient carbon capture capacity of this alga. *Dunaliella tertiolecta*, a chlorophyte, appears to have an uncommonly high degree of PSII reaction core quenching capability. This might allow this alga to successfully inhabit environments with rapidly changing light conditions.

In 2009 Sven spent the Antarctic summer at Davis station where Antarctic phytoplankton communities were investigated for



Sven during the Wellington ASPAB meeting. Photo K. Dixon.

physiological acclimation in PSII, a project under Peter Ralph, University of Technology Sydney. Thereafter Sven moved back to Europe and is currently employed at the Netherland Institute for Ecology (NIOO), Centre for Estuarine and Marine Ecology (CEME) until the end of 2011. Together with Jacco Kromkamp, Sven is using ship borne remote sensing for spectral water reflection to look at spatial and temporal changes of primary production and underwater light climate. S.Ihnken@nioo.knaw.nl

2011 ASPAB Committee

The AGM held during the 2010 Rottneest conference brought a couple of changes to the composition of the ASPAB committee. Most of the 2010 standing executive committee members were re-elected with the exception of Martina Doblin who stepped down from the position of secretary and was replaced by Joe Zuccarello. Thank you to Martina for your years of service and valuable input as ASPAB secretary. Also, replacing Roger Huerlimann as student representative is David Weller. Thank you for your contributions Roger and welcome David.



New student representative David Weller sampling from a stream.

The committee is now:

Position	Name	email
President	Alecia Bellgrove	alecia.bellgrove@deakin.edu.au
Vice President	Judy Broom	j.broom@auckland.ac.nz
Treasurer	Joanna Jones	jo@jokain.net
NZ Membership/Treasurer	Tracy Farr	t.farr@niwa.co.nz
Secretary	Joe Zuccarello	joe.zuccarello@vuw.ac.nz
Webmaster	Erasmio Macaya	emacaya@oceanografia.udec.cl
Newsletter editor	Kyatt Dixon	kyattdixon@gmail.com
Student representatives	David Weller	d.weller@niwa.co.nz
General members	Fred Gurgel	Gurgel.Fred@saugov.sa.gov.au
	Alan Millar	Alan.Millar@rbgsyd.nsw.gov.au

ASPAB Annual Conference 2011
7th -10th November 2011 Queenscliff, Victoria

Enjoy the delights of the Bellarine Peninsula.

Details of the 2011 meeting to be held at Queenscliff, Victoria, have been finalised. Here are the registration fees and important dates:

Early registration (deadline August 1st)

Full – members	\$280
Students and retirees – members	\$170
Full – non-members	\$300
Students – non-members	\$180

Registration after August 1st

Full – members	\$330
Students and retirees – members	\$220
Full – non-members	\$350
Students – non-members	\$230

Registration closes on September 1st, so we can finalise group accommodation. Any delegates registering after that time will have to organise their own accommodation.

Payments of group accommodation can be made from September 15th-30th.



Ecklonia radiata is a common element of the Queenscliff and Point Lonsdale floras. Photo: K. Dixon.



ASPAB Annual Conference 2011

Marine & Freshwater Resources Institute
Queenscliff, Victoria
7th-10th November

Upcoming meetings and workshops

APPF 2011

The 6th Asian Pacific Phycological Forum

October 9-14, 2011, The Ocean Resort, Yeosu, Korea

Topics:

Algal Tree of Life	Omics in algae
Cell biology and biotechnology	Marine bioactive compounds
Biofuels and biomass	Algae and marine environments
Dinoflagellates in evolution	Algal phylogeography

Key dates:

Submission of proposals	May 31
Early registration cut off	May 31
Registration and abstracts due	July 31st

Official website: <http://www.appf2011.org>

Contact: secretary@appf2011.org

The 7th Australian Algal Workshop

The 7th Australian Algal Workshop continues the theme of exploring the taxonomy and identification of Australian cyanobacteria and microalgal flora. This year's program will include coccoid cyanobacteria, bacillariophyta, marine phytoplankton, HABs and the application of genomic and molecular techniques in taxonomy, phylogenetic research and phytoplankton monitoring. The workshop will focus on both the theoretical and practical aspects of prokaryotic and eukaryotic phycology and will be organised around keynote lectures, poster presentations and interactive laboratory sessions.

The 7th workshop in this series will provide an important forum for workers and specialist in the field of phycology to meet in a relaxed and co-operative environment to discuss developments in contemporary Australian algological studies, an opportunity to continue developing skills in identification techniques and to develop professional networks. As usual participants are encouraged to bring samples and digital images for microscopic examination and discussion in laboratory sessions. We also welcome participants to present posters (maximum A0 size) on aspects of their work within the workshop theme.

Workshop presenters

Dr Chris Bolch, University of Tasmania
Assoc. Prof. Jacob John, Curtin University
Dr Glenn McGregor, Qld Dept. Environment and Resource Management
Assoc. Prof. Larelle Fabbro, Central Queensland University
Dr Leo Duivenvoorden, Central Queensland University
Dr Barbara Sendall, Queensland Health
Mr Peter Baker, Australian Water Quality Centre

Workshop participants

The workshop is open to individuals from government laboratories and agencies, commercial laboratories, consultants and research students with different backgrounds ranging from beginners to experienced practitioners who would like to refresh their knowledge of particular groups. The purpose of the workshop is to broaden phycological skills and knowledge, not necessarily to further research goals.

Dates

Monday 4 - Wednesday 6 July 2011
Program times to be confirmed.

Venue

Queensland University of Technology - Gardens Point Campus
2 George Street, Brisbane, Qld 4001

http://www.cpe.qut.edu.au/course_pages/2011/AAWC011.html

4th International Barcode of Life Conference



Key dates:

Online registration open	1 May
Abstracts due	15 May
Travel grant apps due	19 May
Agenda available	1 Aug

The [Consortium for the Barcode of Life](#) and the [University of Adelaide](#) invite you to join us in Adelaide, Australia from 28 November - 3 December 2011 for the Fourth International Barcode of Life Conference. Barcoding has seen extraordinary growth since the Mexico City Conference in November 2009 so join participants from around the world for the biggest barcoding event ever!

There will be a fully dedicated taxon-oriented parallel technical session on the DNA Barcode of Marine Macroalgae being organised by Drs Gary Saunders, Fred Gurgel and Line Le Gall. Invited speakers so far include: Drs Heroen Verbruggen, Tom Schils, Paul Gabrielson, and Judy Broom (all partially confirmed).

Online abstract submission is now open, just follow the link: http://www.dnabarcodes2011.org/conference/program/abstract_submission/index.php

Remember, abstracts are due 15th May!

When submitting abstracts do not forget to tick box B.4 "Micro- & Macro-Algae session" for the Taxon-oriented Parallel Technical Session Topics (15 minutes).

On the behalf of the Local Organizing Committee, we look forward to seeing you in Adelaide at the end of the year.

Official Website: <http://www.dnabarcodes2011.org/>

Polar Marine Diatom Taxonomy and Ecology Workshop



Dates: 04.07 - 08.07.11

Place: Macquarie University, Sydney, Australia

Contact person: Amy Leventer

Web Site: <http://www.climatefutures.mq.edu.au>

Additional Information

The workshop will provide the international community of polar diatom specialists and students with an opportunity to allow students to receive training and advice from leaders in the field and for all to exchange data and discuss taxonomic issues toward standardization of terminology and identifications.

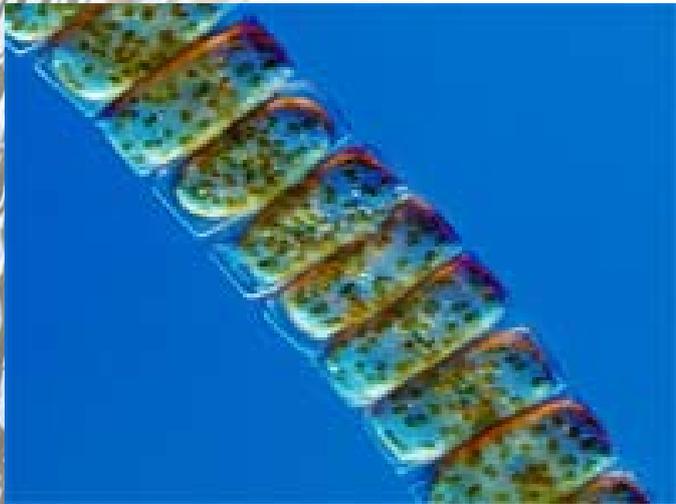
Main aims:

- Coordinate the transfer of sound taxonomic skills and exchange knowledge relative to modern and fossil diatom records of polar regions, particularly with recent ANDRILL and IODP advances.
- Engage the marine phytoplankton and paleontological communities and raise the research profile and opportunity for on-going training of students and researchers.
- Bring about opportunities for a new taxonomic guide, project development and student exchange between laboratories focusing on recent developments or ongoing enigma in the field.

ASPAB Notecards

The fabulous ASPAB notecards are still available!

Check out these spectacular notecards showcasing some of our local macro- and micro-algae. Take a look at the full range at: <http://www.aspab.org/notecards.htm>.



Diatom chain, Martina Doblin.



The Giant Kelp, Erasmo Macaya Horta.



Printed notecards.



Balliella, Kyatt Dixon.

For information about purchasing notecards, Australian members please contact Joanna Jones (jo@jokain.net) and New Zealand members contact Tracy Farr (t.farr@niwa.co.nz).

AUSTRALASIAN SOCIETY FOR PHYCOLOGY AND AQUATIC BOTANY

APPLICATION FOR STUDENT TRAVEL GRANT TO ASPAB CONFERENCE

Student name:

Are you a financial member of ASPAB?

Student Supervisor:

I _____ declare that the

_____ is a student at

Student Address:

Title of presentation:

Cost for attending conference (please attach photocopy of receipt):

(send this form to the ASPAB Conference organizing committee)

AUSTRALASIAN SOCIETY FOR PHYCOLOGY AND AQUATIC BOTANY

APPLICATION FOR STUDENT OVERSEAS TRAVEL GRANT

Conference, Workshop, Herbarium, Laboratory

Student name:

Are you a financial member of ASPAB?

Student Supervisor:

I _____ declare that the
_____ is a student at

Signed:

Date:

Student Address:

Outline reasons why this travel grant is being requested (at least 250 words)

Title of presentations (Conference, Workshop):

Herbarium/Laboratory to be visited:

Dates of Conference, Workshop, Visit:

Cost of travel (please attach photocopy of receipt):

Return to, with all accompanying documentation, ASPAB secretary

MEMBERSHIP and RENEWAL

(For all members and applicants. Please return with membership application or renewal)

Renewals are due 1 July

(delete whichever does not apply)

Name: Dr/ Ms/ Mr/ Mrs _____

Affiliation: _____

Postal Address: _____

Country: _____ **Postal Code:** _____

Preferred email address: _____

Tel: _____ **Fax:** _____

Signature of Applicant: _____

Date: _____

Current membership Fees:

	AUSTRALIA (incl. GST) ABN 86 508 002 420	NEW ZEALAND
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Full Member:	A\$33	NZ\$30
Student Member:	A\$11	NZ\$10
Retired Members:	A\$11	NZ\$10

AUS members, please send renewals to the ASPAB Treasurer, Dr. Joanna Jones jo@jokain.net

All other renewals should be sent to the NZ Convener, Tracy Farr ASPAB@niwa.co.nz