Dear Members,

I am the Sole Director of a small consultancy business that specialises in bioinformatics (biological information systems).

I believe that there always has been, and will be, immense potential in the hybrid zone of IT and the environment. When I consider that early recorded art included communicating information about food, I think it's not that the field is new, but that it's simply becoming apparent that it's still pretty big and important.

My experience includes having worked as a Web and handheld specialist for the CSIRO, and in contrast to the genetic focus of most Bioinformatics specialists I have expertise in areas at levels beyond the cell - such as observation databases.

I famously recall Dr Jim Peacock (Head of CSIRO Plant Industry) once extolling the new (genetic) Bioinformatics specialists he was encountering, seemingly oblivious to the presence of those of us who were experienced Bioinformatics specialists right with him in the room.

A qualified and experienced Tropical Ecologist, over the last five years or so I have earned a living implementing numerous commercial web applications, and as part of a product commercialisation strategy I have undertaken a Business Readiness program through ADI, a Victorian BITS incubator.

An affiliate of the IEEE Computer Society, member of the Ecological Society of Australia and the International Working Group on Taxonomic Databases, I am also a registered Solutions Provider for Palm, Apple and a Microsoft Partner.

My game plan is to grow a small business that provides internationalised products and services that improve and streamline wildlife observation recording, identification and brokering for environmental professionals and wildlife enthusiasts.

To that end I have undertaken some ad-hoc market research, and developed a (very) simple spreadsheet estimate of markets in Australia, US and Europe.

I presently employ an assistant for 4 hours per week.

By my estimation there are only about 80-400 Australians who get up in the morning and are paid (full-time) to survey wildlife on an ongoing daily basis. I'm not including academics and students. There is a very large number of part-timers, amateur naturalists and volunteers. In fact, I would not be surprised if the biggest competing factor against decent environmental (wildlife-oriented) careers is the quality and abundance of volunteers.

The Royal Australian Ornithological Union has very interesting numbers on participation rates for it's recent nationwide survey of birds. I am working with the RAOU on a project to implement field survey recording using a handheld computer. Please contact Dr Geoff Barrett for further info:

Dr Geoff Barrett	1. \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
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415 Riversdale Rd Hawthorn East, Vic, 3123	RECEIVED
Ph (03) 9882 2622	2 0 AUG 2002
Fax (03) 9882 2677 email: <u>g.barrett@birdsaustralia.com.au</u>	HOUSE OF REPRESENTATIVES STANDING COMMITTEE ON ENVIRONMENT AND HERITAGE
It is my submission that in relation to:	

The current contribution of environmental goods and services to employment in Australia;

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- The future potential growth, including barriers and opportunities for growth, of environmental goods and services and impact on employment;
- * Current status and future requirements for an appropriately skilled workforce;
- Appropriate policy measure that could encourage the further development of the environmental goods and services sector; and
- * Information and reporting systems that would support the uptake of environmental goods and services to enhance overall business performance and development of the sector.

I have found the following various documents useful to my own understanding:

- 'Tasmanian Environment Industry Plan'

- Page 1 of weekend Careers section in 'The Australian' newspaper 28-29 April 2001

- Page 28 'The Australian 13 Feb 2002

- Various research documents from 'www.bticonsulting.com' (I don't have actual copies)

- audience profiles from 'enn.com' and 'environmentalexpert.com'

The fundamental commercial opportunity for wildlife observations lies in providing observation at levels of precision which are otherwise unavailable. In Australia there are now Federal and State government agencies who are making some observational records available to the public at spatial resolutions of 1km.

In relation to this, there is at present no commercial wildlife observation repository service available anywhere (to my knowledge). Past fauna surveying has been sponsored, done under patronage or done voluntarily. Under these scenarios the intellectual property issues of the data can be fairly problematic.

To contrast Australia and America, two developments that have interested me:

- An NSF grant to a company (<u>www.simbio.com</u>) that makes ecological simulation software. Would this ever happen in Australia?

- An NSF grant to Bob Stevenson for an Electronic Field Guide.

I would suggest Australia needs to be less complacent to be able to compete in these spaces.

The following practical matters of interest to me, and which may be worthy of the committee's consideration and support:

* Grants for the development and operation of Professional Development and Certification programmes for associations, such as the Ecological Society of Australia,

* A grant to maintain, renovate and be inventive with the RAOU Bird Atlas database. The entire process could be improved, commercialised and implemented in other countries.

* Mimicking the Film Industry grant schemes in the SME IT space, where small seed grants of around \$5,000 are available.

* A survey of Australian environmental Professionals (their levels of IT use/adoption).

I am confident that a market for a commercial observation service exists, and if anyone knows of an Angel investor who uses a handheld computer and is interested in deals around the A\$50-75,000 mark in this investment space, then please make them aware that I have an opportunity for them.

Regards,

Alex

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