SWIFFT State Wide Integrated Flora and Fauna Teams

SWIFFT Meeting Notes 23 May 2007

SWIFFT meeting notes are a summary of the videoconference and not intended to be a definitive record of presentations made and issues discussed.

TOPICS & SPEAKERS

Millipedes of south-west Victoria - *Bob Mesibov*

Corangamite Catchment Management Authority biodiversity update - *Nick McCrystal*

Wimmera Catchment Management Authority biodiversity update - *Dean Robertson*

Glenelg Hopkins CMA biodiversity update - *Jody Chinner*

Casterton Biodiversity Project - *Amanda Ashton, Melbourne University*

Echinoderms and unique holothurian fauna - *Mark O'Loughlin, Museum Victoria*

Glenelg Ark predator control program - *Justin Cook, DSE Portland*

Brush-tailed Rock-wallaby reintroduction - *Tony Corrigan, Grampians National Park*

Red-tailed Black-cockatoo habitat tender - *Dean Robertson, Wimmera CMA*

Native Fish Plan for Victorian coastal rivers - *Michelle Drew, ARI*

Habitat Network Plan - *Jody Chinner, Glenelg Hopkins CMA*

The second SWIFFT videoconference for 2007 was held on 23 May 2007, with 40 participants across the South West region of Victoria and Arthur Rylah Institute at Heidelberg (Ballarat 13, Geelong 13, Warrnambool -nil, Hamilton 5, Horsham 5, ARI (4). Participants included representatives from Glenelg Hopkins CMA, Corangamite CMA, Wimmera CMA, Field Naturalists Clubs (Ballarat, Hamilton), Anglesea Environment Network, Parks Victoria – Grampians N.P., Great Otway N.P., Gordon TAFE, Melbourne University -Creswick, City of Greater Geelong, Hepburn Shire, Surfcoast Shire, Upper Barwon Landcare Network, Birds Australia.

SPEAKER SUMMARIES

Millipedes of south-west Victoria - *Bob Mesibov*

Bob spoke about a study of native millipedes which he has been conducting in south-west Victoria over the past 4 years. Findings to-date include:

- all millipedes in Victoria's south-west are endemic to the south-west of the State
- there are at least 16-18 species of millipedes with each species having its own small range of a few hundred square kilometres.

The main focus of the study is south of the Hamilton Highway between the Eumeralla River and the Hopkins River. Bob has found that millipedes prefer moist environments and the

main determinate is not the broader habitat type but more the presence of decaying/rotting plant material e.g. Blue Gum plantations established on bush remnants and even second rotation plantations which have an abundance of decaying material.

Native species of millipedes live between 2-5 years and the introduced Portuguese millipede has invaded many areas. A question was raised about occurrence on the Basalt Plains but Bob has no records from this area yet. Bob is happy to receive collected specimens from across the South West region.

Above images: These two are South West Victoria natives. There are fewer segments, and each one breaks up the body outline. The legs are fewer and fatter. Colour varies, but is generally brown and never black.

Above image. This Portuguese millipede is not a native. It's black, shiny and round and has very thin legs. Note the large number of segments and the smooth body profile.

Further information:

Dr Robert Mesibov, Honorary Research Associate, Queen Victoria Museum and Art Gallery and School of Zoology, University of Tasmania

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Corangamite Catchment Management Authority biodiversity update - *Nick McCrystal*

- The CCMA is in the process of replacing Chris Pitfield's biodiversity position.
- The CCMA is currently formulating a response to the 'Land & biodiversity at a time of climate change' Green Paper & White Paper.
- Nick reported on the CCMA's Wetland Tender which has resulted in 80 hectares of wetland in conservation management for the next 5 years. The CCMA is also completing an 'Index of wetland condition' at 100 sites.
- Lake Connewarre study, includes wetland habitat, aquatic vegetation and fauna.
- Victorian Volcanic Plains – analysis of Local Government's roadside plans, what management plans are in place to protect roadside biodiversity and what prescriptions are in place to ensure protection/management of biodiversity values.
- Social benchmarking research results, this report presents findings from research commissioned by the Corangamite Catchment Management Authority. Data were collected through a survey of rural landholders in the CCMA region during 2006.

Note: Chris Pitfield has taken a position with DSE in Melbourne, he was a supporter of the SWIFFT and we thank him for his support.

Wimmera Catchment Management Authority biodiversity update - *Dean Robertson*

- The CMA will be undertaking a revision of the Native Vegetation Plan in July-August.
- The 10th annual biodiversity seminar will be held on 6 September 2007 at Longerenong College, the theme will be 'Bulokes'.
- Dean will be attending a conference in Tasmania 'Balancing conservation & production'.
- Jackie Norris will be standing in for Dean over the coming months.

Glenelg Hopkins CMA biodiversity update - *Jody Chinner*

- A $1.3million Bush Tender program is set to commence in July-August, there is a focus on the Glenelg & Portland sub-catchments and linking in with Greening Australia.
- The GHCMA is a pilot region for development of a weed plan, a draft will be released soon, this is a new generation weed plan that includes an asset based approach.
- The GHCMA is also developing input to the 'Land & biodiversity at a time of climate change' Green Paper & White Paper
- Chris Tzaros from Birds Australia is co-ordinating an Orange-bellied Parrot 'identifying and defining mainland habitat' project. The CMA & Birds Australia is approaching the second year of a 3-year project on OBP's.
- Habitat Network Action Plan, report prepared by Jody Chinner.

Casterton Biodiversity Project - *Amanda Ashton, Melbourne University*

This project is headed 'Determining appropriate ecological fire regimes to manage biodiversity in heathy woodlands. The project is looking at the number of fires in the study area and frequency of fires. Surveys at 33 sites have been conducted since December 2006, these included invertebrate pitfall traps, hair tubes for mammals and trap and release for mammals. Interesting results include; more ants in recently burnt areas, occurrence of Heath Mouse, Silky Mouse and Yellow-footed Antechinus.

Sub projects:

1. Effects of fire management on small mammals (Alan York & Amanda Ashton) Honours Students:

    - Rob Morris: Habitat requirements of the Heath Mouse
    - Laura Owens: Ecology of the Silky Mouse: implications for fire management

2. Effects of fire regime on vegetation composition, structure and pattern (Tom Duff – PhD student)

3. Coarse woody debris in fire-prone forests: Achieving both fire management and conservation objectives (Anne Miehs – PhD student)

4. Biodiversity and ecosystem processes: the role of fire at the soil-litter interface (Tina Bell & Cara Reece)

5. Invertebrate biodiversity: how to maintain it at a landscape scale? (Alan York, Cat Nield & Helen Doherty)

6. Fuel accumulation modelling (Kevin Tolhurst)

7. The impact of herbivores on threatened plant communities after fire (Fiona Christie)

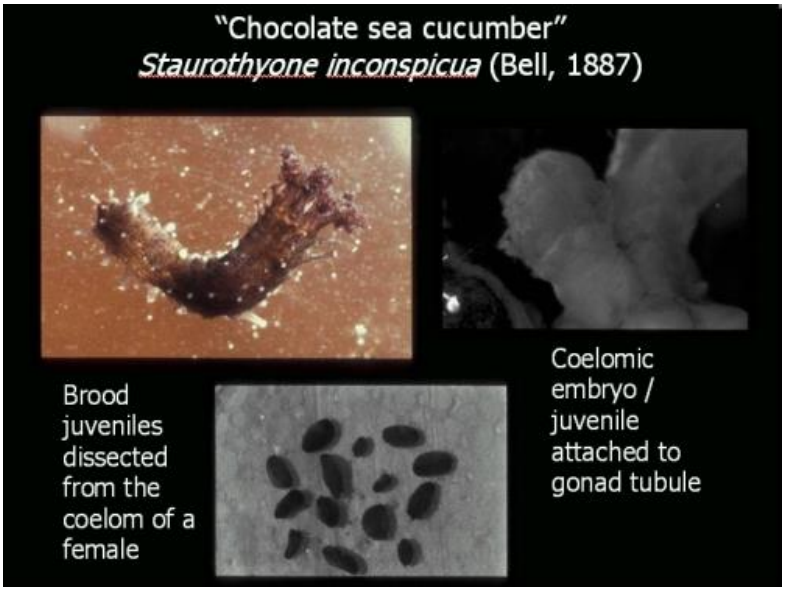
Echinoderms and unique holothurian fauna - *Mark O'Loughlin, Museum Victoria*

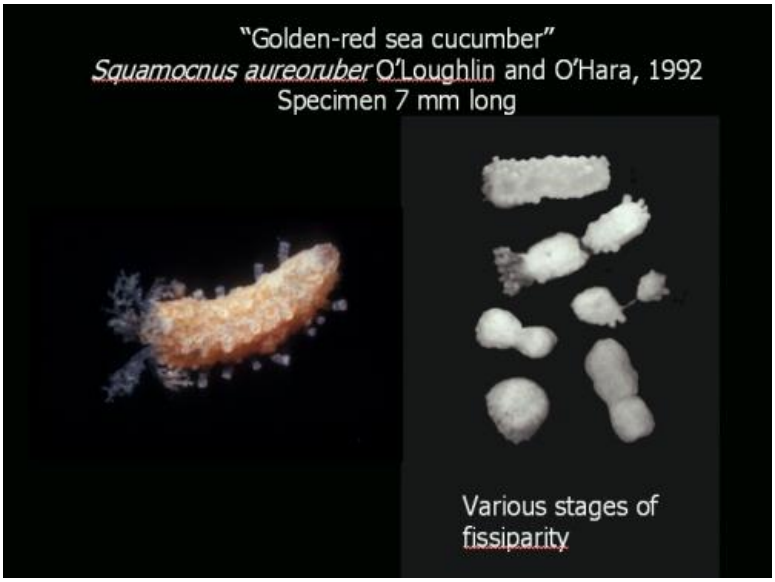
Sea Cucumber *Apsolidium densum*, a rare holothuroid found in shallow waters near Apollo Bay, side profile, photo courtesy Leon Altoff.

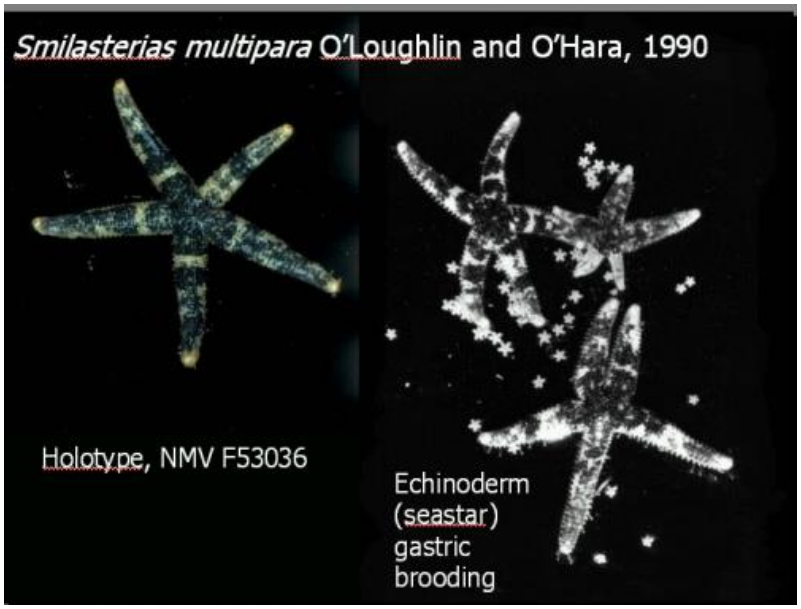
Mark provided a very interesting perspective on some of our lesser known marine fauna and their incredible biological adaptations which have allowed them to exist for millions of years. Some of key points are:

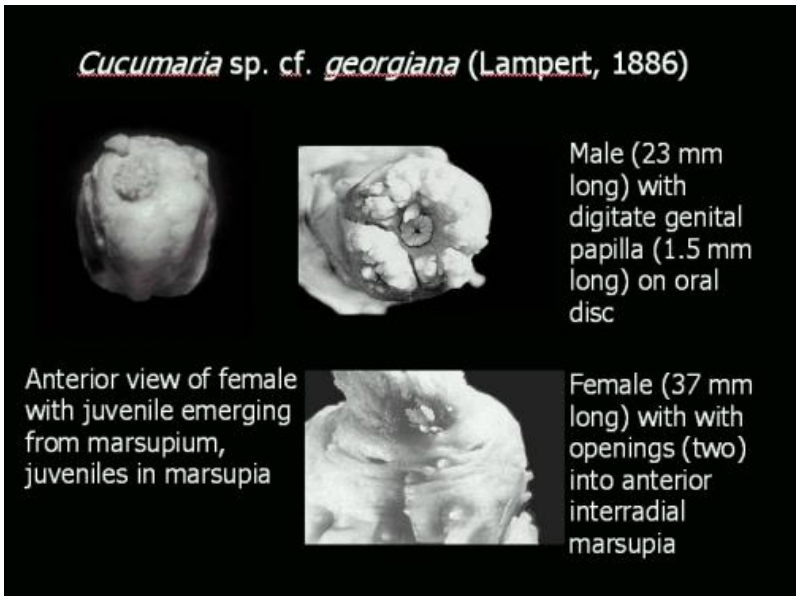
- we have globally unique marine fauna on the Victorian coastline
- Echinoderms date back 500 million years when there were 20 classes, most of which were lost approx. 250 million years ago - we now have 5 classes, local species have survived about 120 glaciations including periods when Bass Strait was dry.
- Echinoderms have been viewed as primate but in reality, they are very complex creatures e.g. regrowth of body limbs, holothuroids exhibit communal behaviour, they copulate and are aware of each other's presence both male & female.
- Echinoderms display a highly variable reproduction biology e.g. tearing themselves into two and regenerating two individuals (fissiparity), brooding juveniles internally, carrying eggs on folds within the body wall. Some have male and female organs on the same animal.
- Echinoderms inhabit areas from shallow intertidal habitats down to 7,000 meters deep.
- Many holothuroids are just a few millimetres in length and display unique biological behaviour, work is still progressing on documenting the species that live on the Victorian coastline.

Echinoderms – examples of reproduction. Images provided by Mark O'Loughlin, Museum Victoria.


"Chocolate sea cucumber"
Staurothyone inconspicua (Bell, 1887)
Brood juveniles dissected from the coelom of a female
Coelomic embryo / juvenile attached to gonad tubule


"Golden-red sea cucumber"
Squamocnus aureoruber O'Loughlin and O'Hara, 1992
Specimen 7 mm long
Various stages of fissiparity


Smilasterias multipara O'Loughlin and O'Hara, 1990
Holotype, NMV F53036
Echinoderm (seastar) gastric brooding


Cucumaria sp. cf. *georgiana* (Lampert, 1886)
Male (23 mm long) with digitate genital papilla (1.5 mm long) on oral disc
Anterior view of female with juvenile emerging from marsupium, juveniles in marsupia
Female (37 mm long) with with openings (two) into anterior interradial marsupia

Glenelg Ark predator control program - *Justin Cook, DSE Portland*

Long-nosed Potoroo taken with remote camera, source: Glenelg Ark -DSE.

Justin advised the program has been going for 3 years and ends this financial year but it is hoped to extend for another 4 years with half the budget spent on control and half on monitoring. The program has operated across 70,00 hectares of public and private land, baiting of foxes was conducted continuously for 2 years and 40 monitoring stations have been set up. The level of bait taken on private land has been more than expected. Special motion sensor cameras have been set up at some sites and these has proven to be a good way of monitoring both predator and native species visiting the sites. Key species being monitored are Long-nosed Potoroo *Potorous tridactylus*, Southern Brown Bandicoot *Isoodon obesulus obesulus*, and Heath Mouse *Pseudemys shortridgei*.

See: Glenelg Ark project

Brush-tailed Rock-wallaby reintroduction - *Tony Corrigan, Grampians National Park*

Tony provided an update on the reintroduction program which has been extended out to a proposed release in Spring 2008. The extension has allowed more time for predator control work and recovery of the environment since the 2006 Grampians bushfires. Tony mentioned there appears to be a displacement of macropods into areas where they wouldn't normally expect them to be. The predator control program has included baiting and selective shooting over 74,000 hectares. Two animals are being held at a special pre-release enclosure at Dunkeld with a further 3 to be added soon. The release site has been narrowed to a site on the Serra Range where it is hoped 12 sub-adult animals (two males, some young females and hopefully some pregnant females) will be released. A site management plan is being written for the area and the program will also include on-going monitoring of released animals, competitors, predators, vegetation and any disease issues.

*More information about Brush-tailed Rock-wallaby.

Red-tailed Black-cockatoo habitat tender - *Dean Robertson, Wimmera CMA*

Dean explained how Market Based Instruments such as the habitat tender are very effective in securing habitat for conservation. In this case there is a 5 year tenure, 82% of landholders were successful, 191 sites and 41 landholders were involved. Importantly 70% of the money went to landholders with the remainder required for administering the process. Buloke Woodland Ecological Class under tender was only measured in the 100's of hectares whilst Brown Stringybark was in the 1000's of hectares. A comprehensive habitat model is being prepared by University of Southern Queensland. More about Red-tailed Black-Cockatoo.

Native Fish Plan for Victorian coastal rivers - *Michelle Drew, ARI*

The plan will cover the 5 coastal Catchment Management Authorities, with a sub plan for each CMA. The plan began in April 2006 and will be completed by June 2008. It will provide a guide to the management of native freshwater fish and encompass the entire river length for rivers south of the Great Dividing Range. Contacts are; Michelle Drew & Steve Saddlier 03 94508600.

Habitat Network Plan - *Jody Chinner, Glenelg Hopkins CMA*

The plan will cover 32 sub-catchments and is formulated using a mix of Biodiversity Action Plans (BAP's) and the Glenelg Hopkins Native Vegetation Plan. Using various maps important values are identified together with the EVC and threatened species. The document is available on CD, contact Jody Chinner, (03) 5571 2526

Other items - *John Amor, Coast Action, Warrnambool.*

- The Maremma Dog & penguin protection project at Middle Island, Warrnambool will go ahead in June thanks to support from Powercor and GHCMA.
- Coastal Wildlife Connies cards have been produced to highlight the needs of coastal wildlife. These cards are available from John Amor, Coast Action, Warrnambool

The next SWIFFT video conference is scheduled for Wednesday 22 August 2007