William Henry Harvey and his Western Australian Seaweeds

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Main Club September 6, 2024

Our speaker was Dr John Huisman, Principal Research Scientist (Curator, Herbarium) at the Department of Biodiversity, Conservation and Attractions.



John has published ten books on seaweeds, including his latest, Marine Plants of Australia, which describes over 640 species, and was on sale at the meeting. (see book cover on



page 2 of this report)

Dr John Huisman, at Rowley Shoals. Photo Eric Matson)

He gave us an interesting talk about the seaweeds of our WA coast, with special reference to William Henry Harvey, an Irish botanist who was in WA in 1854/55 with the aim of "exploring the natural history of the southern coasts of that continent ... and for extensively collecting Marine Algae". Before that, Archibald Menzies, sailing with George Vancouver on the Discovery, and Robert Brown, with Matthew Flinders on the Investigator, had collected south coastal seaweeds. Ludwig Preiss also collected seaweeds during his 1839-42 stay in WA.

William Harvey, it seems, was a workaholic, and collected numerous specimens and described 133 new species and 7 new genera from WA. He was also a prolific letterwriter. Harvey suffered ill health on some of his trips and had to return from Africa to recover from what he called "monomania", which was probably acute depression, but was recorded as "tuberculosis". He often expressed himself poetically, describing the waters around Rottnest as being "intensely transparent". He eventually published *Phycologia Australica – a Synopsis of All Known Australian Algae*, with 300 lithographs illustrating them, in five volumes. John talked about a number of our local seaweeds, illustrated by photos. They come in a great variety of shapes and colours, such as the meshlike form of Martensia denticulata (right), and the "bunch of grapes" appearance of the Caulerpa species.



Platysiphonia is iridescent under water and turns red out of water. One seaweed was perforated all over, and another was bead-like. William Henry Harvey and his Western Australian Seaweeds | Western Australian Naturalists Club



One local species has become a weed in the Mediterranea n. Halimeda versatilis (left) is an example of a calcareous alga whose hard parts fall to the seabed when it dies, thus playing a part in building sediment.

John mentioned some strange cases among the seaweeds. There is one (Bryopsis foliosa) that is grazed by a sea-slug, which sucks the chloroplasts out of it and becomes



photosynth etic itself

(*Caliphylla sp.*, right – see also *Landscope* article on page 2 of this report.

There are several species of seaweed that reproduce by vegetative propagules, and only occasionally reproduce sexually. And there is a red seaweed that is green!

The red seaweeds are much more diverse than the other two groups. And whereas the greens and the browns have a motile stage, the reds do not. Instead, the egg cell has a receptive hair which is fertilised by the male.

Over the years, John has looked at William Harvey's specimens and matched them with the species that he finds, sorting out and revising their classification. Unlike Harvey, who had to dredge up his seaweeds, John is able to do his work by snorkelling and seeing them in their natural state. What a job! "I don't count it as work", he says.

Mike Gregson

Pages: 1 2

Posted in <u>Reports</u> Tagged <u>Main Club</u>

← Previous: Coates Wildlife Tours (October 2024) Next: KRM Branch Members' Night August 2024 →

Office & Library

1st Floor 82 Beaufort Street, Perth (opposite the WA Museum) Telephone (08) 9228 2495

Postal address

Western Australian Naturalists' Club Inc. PO Box 8257 Perth Business Centre, WA 6849

