

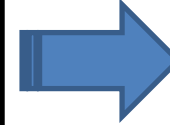
# **Ecosystem Services and Biodiversity Conservation**

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*Discussant*

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Cagayan de Oro City  
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# *Finding a connection*

**Ecosystem  
services + Biodiversity**



**Sustainable  
life  
on land**

# *Discussion Points*

- **How much?**
- **Which one?**





# Some threatened seed plants recorded from different mountains of Mindanao, Philippines

Source: Lumisita, et al.



*Shorea polysperma* (Blanco) Merr.



*...similis* Hilliard

*Medinilla surigaensis*  
Regalado



*Nepenthes copelandii* Merill ex.  
Macfarl



*Nepenthes peltata* Sh. Kurata



*Paphiopedilum adductum* Asher

# How much is Mt Apo worth?

If MANP = 55,000 hectares  
(64,000 accdg to DENR)



The research provides empirical evidence that users and beneficiaries of the MANP ecosystem goods and services derive unpaid benefits from watershed protection, recreation, and biodiversity conservation. The resulting lower-bound estimate of the total economic value of the MANP was PhP 6482 million (AUD 152.5 million) annually or PhP 118 thousand (AUD 2774) per hectare (in 2010 prices). The research reveals that there is clear potential for PES schemes to generate funds in support of effective management of the MANP. PES schemes for watershed protection or to support recreational values present the greatest potential as payment mechanisms already exist. A PES scheme for biodiversity conservation is likely to be the most challenging to design.

Minimum PhP 118,000/ha/year

Cheap?!!

Source:

**ALV Gomez.** 2015. *Identification and valuation of ecosystem services in the Mount Apo Natural Park, the Philippines, as a basis for exploring the potential of 'payments for environmental services' for the protected area management.* (PhD Dissertation)

# *Pricy species?*



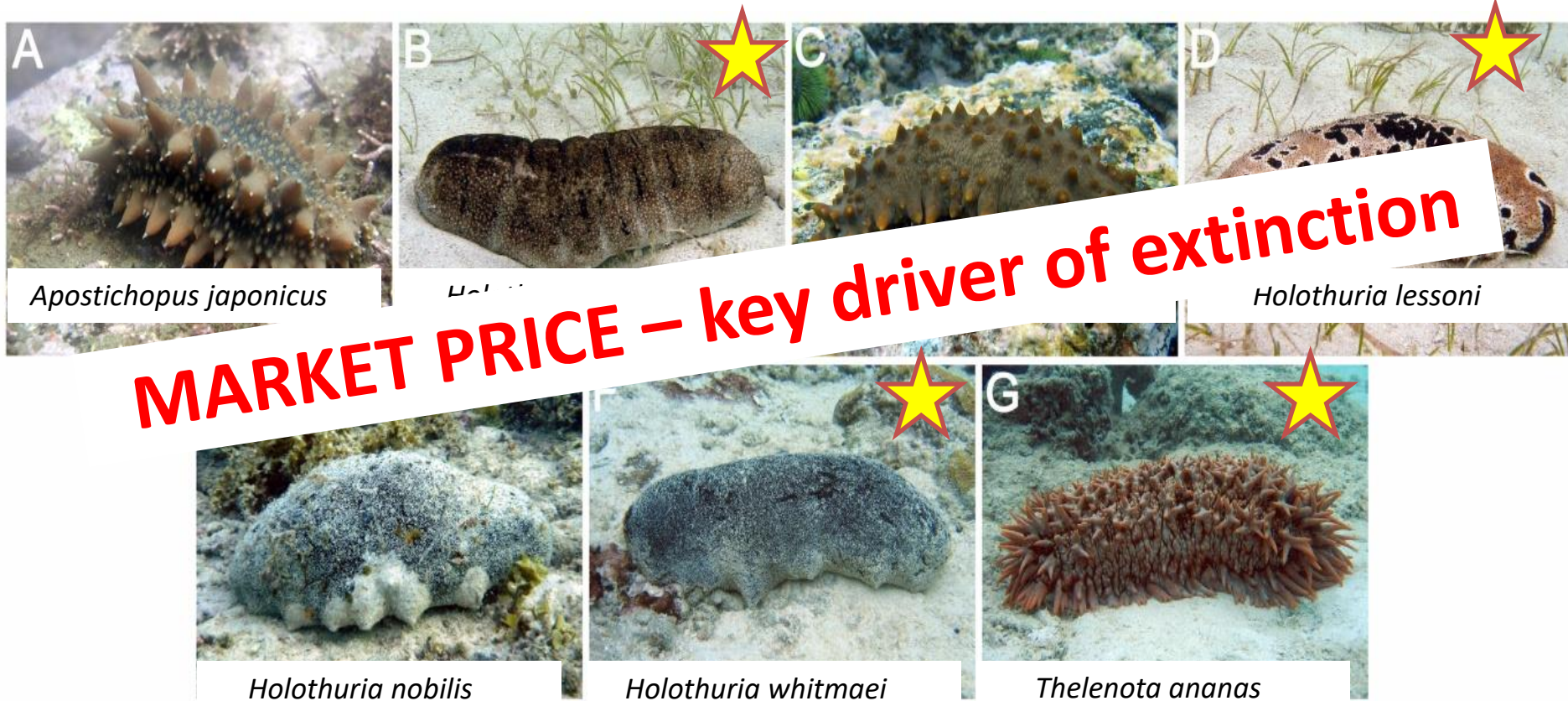
*International Union for Conservation of Nature*

- 377 known species of sea cucumbers (Order Aspidochirotida)
- Global assessment in Cartagena, Columbia, 2010





# Endangered sea cucumbers



Purcell SW, Polidoro BA, Hamel J-F, **Gamboia RU**, Mercier A. 2014 *The cost of being valuable: predictors of extinction risk in marine invertebrates exploited as luxury seafood*. Proc. R. Soc. B 281: 20133296.



*Which one?*







2012



2016






Inside the mini-forest,  
April 2017



forest ?

October 2017



or basura ?



# *Discussion Points*

- **How much?**
- **Which one?**

A black and white photograph showing a dense crowd of people, possibly at a public event or protest. The image is heavily blurred, suggesting movement or a shallow depth of field. A white banner with purple text is overlaid across the center of the image.

**Daghang salamat!**