

The isolation and structural elucidation of polyoxygenated steroids from the gorgonian *Isis hippuris*

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Isis hippuris (sea bamboo)(Figure 1) are widely distributed in the western Pacific area. In the literature, *I. hippuris* has investigated its secondary metabolites, such as polyoxygenated spiroketal steroids, polyoxygenated gorgosteroids, and suberosane-type sesquiterpenes. The marine natural product chemistry of *I. hippuris*, collected at Orchid Island (Lanyu), obtained various hippuristanols, including hippuristerone A (**1**), hippuristerone I (**2**), (22*S*)-3*α*-acetoxy-11*β*,18*α*-dihydroxy-24-methyl-18,20*β*;22,25-diepoxy-5*α*-furostane (**3**), and 3-acetyl-22-*epi*-hippurin-1 (**4**) in this study. The structure of isolated compounds **1** – **4** (Figure 2 – 3) was identified by analyzing their spectroscopic spectra and the single-crystal X-ray diffraction analysis. The X-ray diffraction analysis of **2** and **3** is reported for the first time. The bioactivity assay of **1** – **4** will be performed on cytotoxic and anti-inflammatory activities.

Acquisition time : 2013/03/22	
Collection location : Lanyu, Taiwan	
Classification:	
Kingdon	Animalia
Phylum	Cnidaria
Class	Anthozoa
Subclass	Octocorallia
Order	Alcyonacea
Family	Isididae
Genus	<i>Isis</i> Linnaeus, 1758
Specie	<i>Isis hippuris</i> Linnaeus, 1758

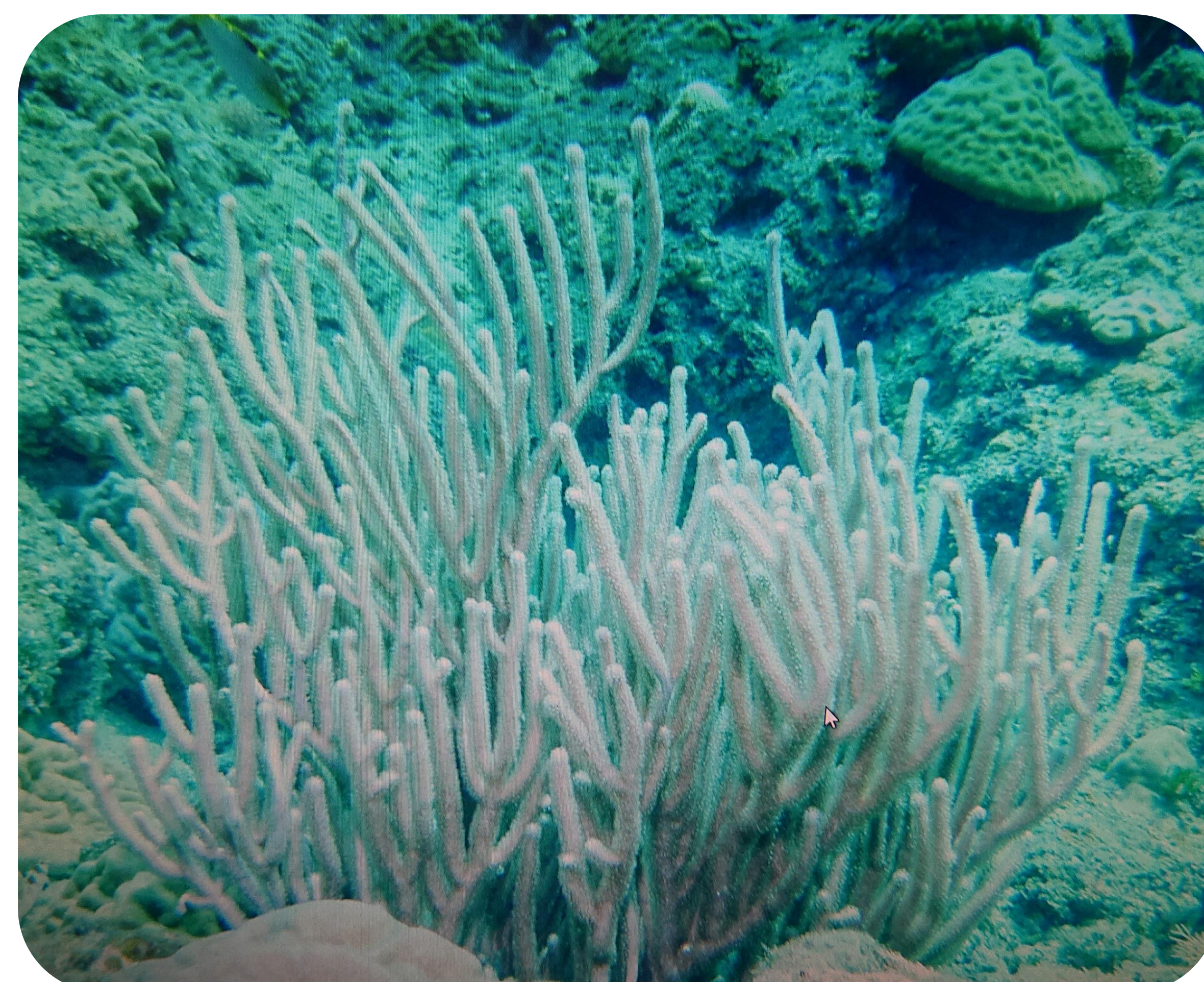


Figure 1. The picture of *Isis hippuris*.

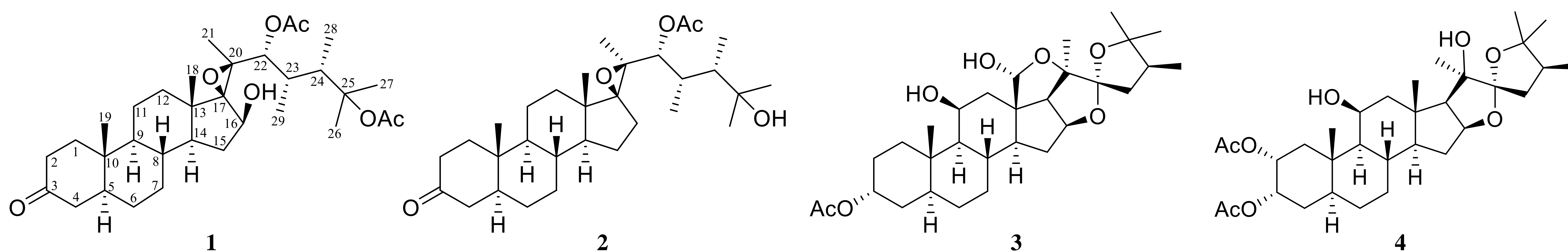


Figure 2. Structures of compounds (**1** – **4**).

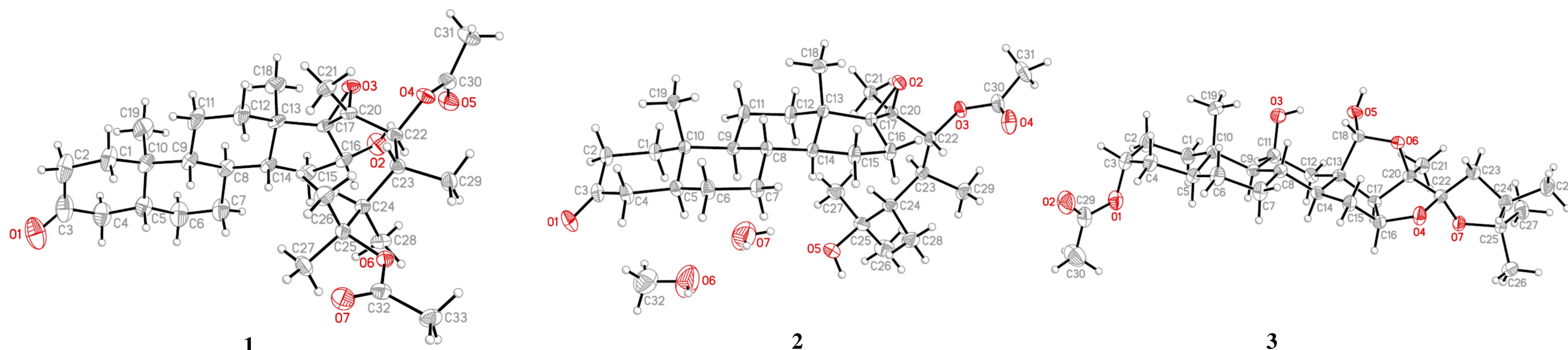


Figure 3. The computer-generated ORTEP plots of compounds (**1** – **3**).