

A field guide to the mesophotic corals of Lord Howe Island Marine Park



Andrew Baird, Roberto Arrigoni, Francesca Benzoni, Tom Bridge,
Mia Hoogenboom, Danwei Huang, Steven Linfield, Sebastian
Schmidt-Roach, T. Edward Roberts, Sonia Rowley, Tullia Terraneo

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The following are preliminary identification of corals from images captured using remotely operated vehicles as part of a Geoscience Australia survey of the benthic habitats surrounding Balls Pyramid (Linklater et al. 2016). The research revealed occasionally abundant and surprisingly diverse coral assemblages at depths of between 40-80 m at 30°S, including the first records for some taxa, such as *Cycloseris*, south of the Great Barrier Reef.

The identifications are necessarily provisional. The image quality is often poor and no specimens were collected. Furthermore, many of the coral species in the Lord Howe Island Marine Park are new to science. The identifications are, however, supported by a large collection of corals from the Lord Howe Island Marine Park, including specimens from some of the mesophotic sites visited by Geoscience Australia, currently in either the private collection of Andrew Baird at James Cook University or the Museum of Tropical Queensland.

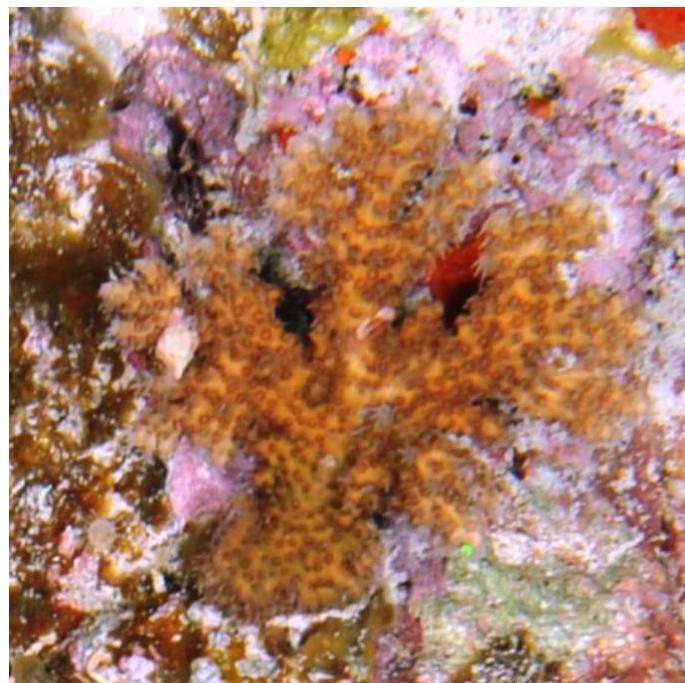
Acknowledgements. This research was funded by ARC Centre of Excellence for Coral Reef Studies and supported by Geoscience Australia. This research was conducted in the Lord Howe Island Marine Park under Permits LHIMP/R/2011/001, LHIMP/R/2013/001, LHIMP/R/18006/01032018. We thank Brian Busteed of Howea Dive, Aaron Ralph of Pro Dive Lord Howe Island, Ian Ker and Sallyann Gudge from the NSW Department of Primary Industries and Hanaka Mera for the design and formatting of the document and images.

Linklater M, Carroll AG, Hamylton SM, Jordan AR, Brooke BP, Nichol SL, Woodroffe CD (2016) High coral cover on a mesophotic, subtropical island platform at the limits of coral reef growth. Cont Shelf Res 130:34-46

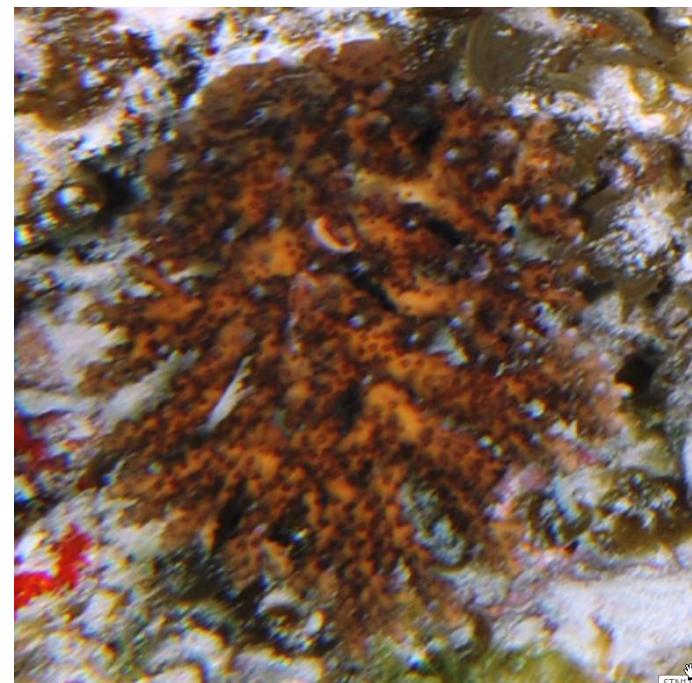
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Acropora arborescent sp_1

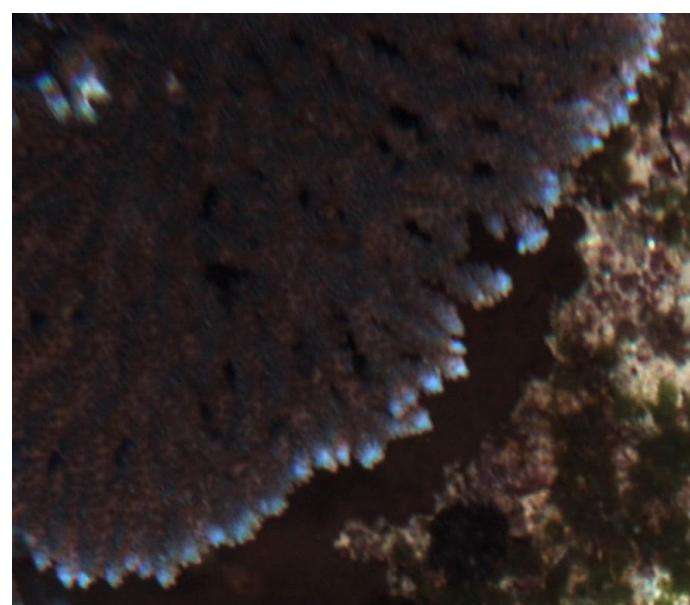


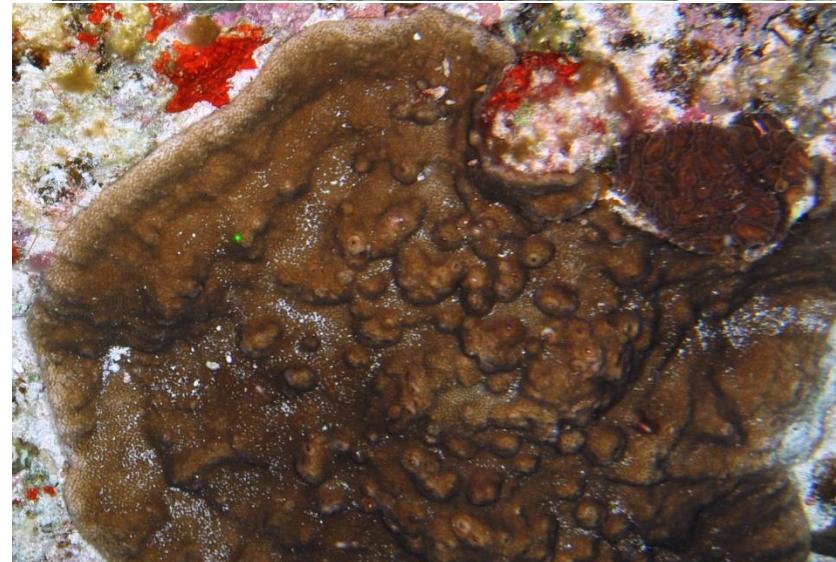
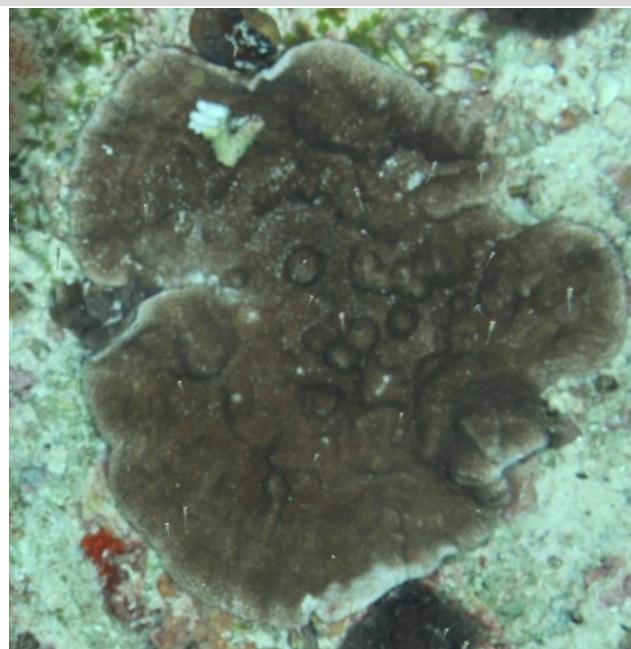
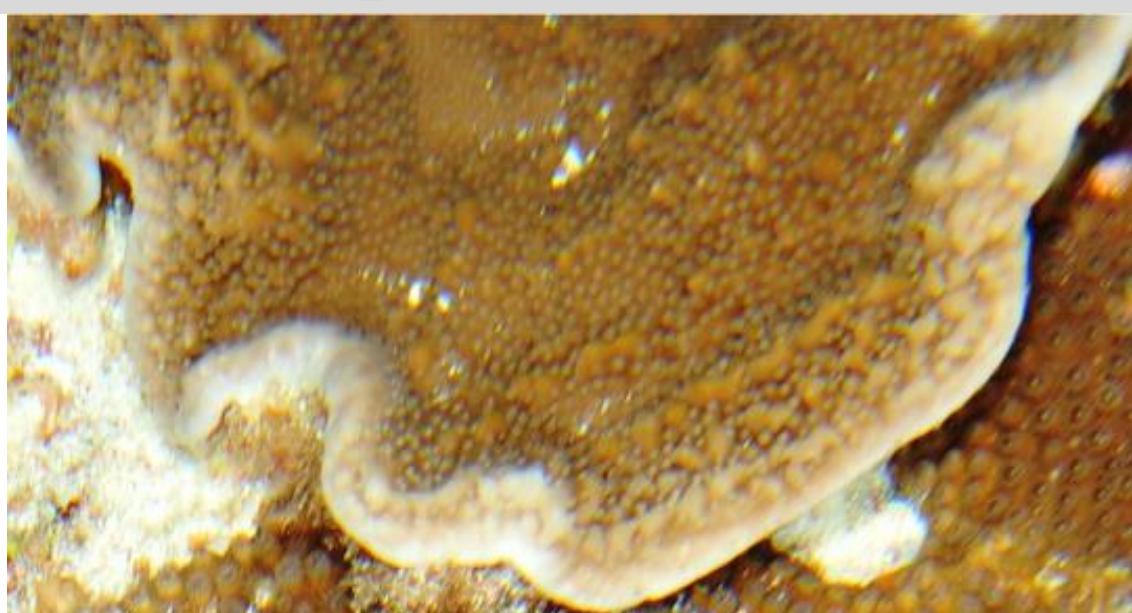
Acropora arborescent sp_2

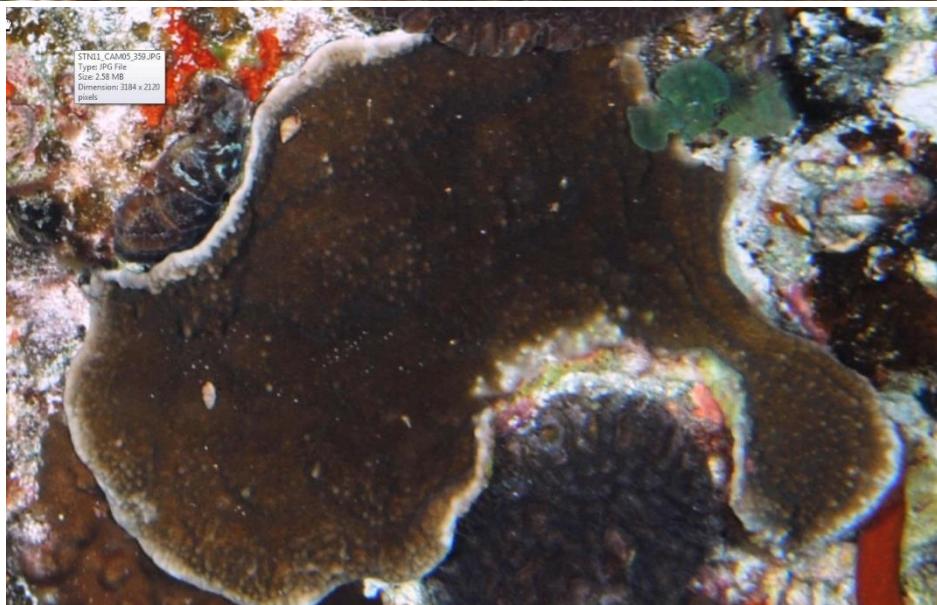


Acropora solitaryensis

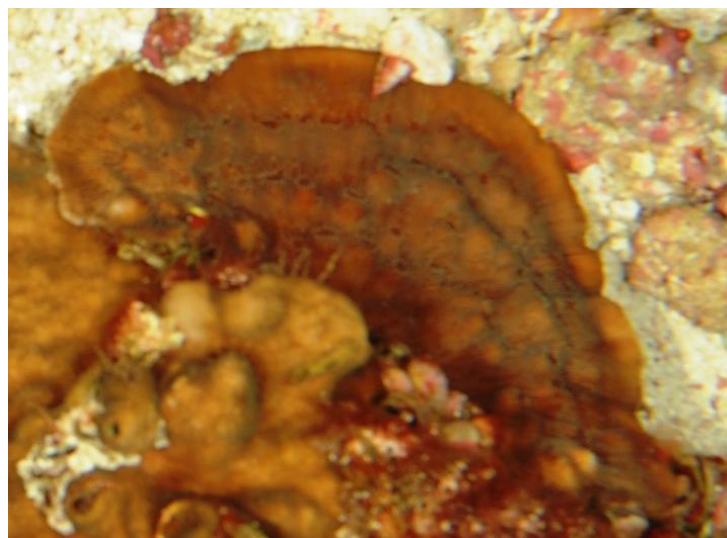


Acropora tabular sp_1

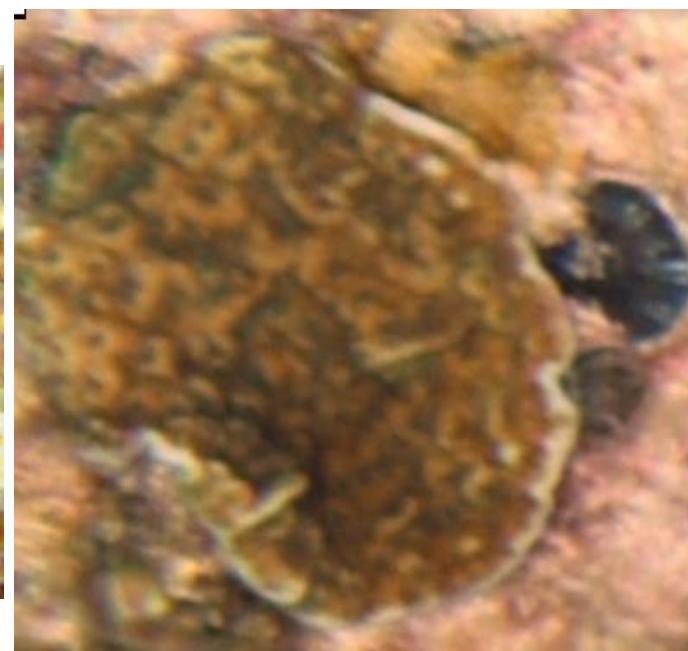
Montipora cf capricornis***Montipora encrusting sp_1***

Montipora* encrusting sp_2**Montipora* encrusting sp_3**

Leptoseris aff hawaiiensis

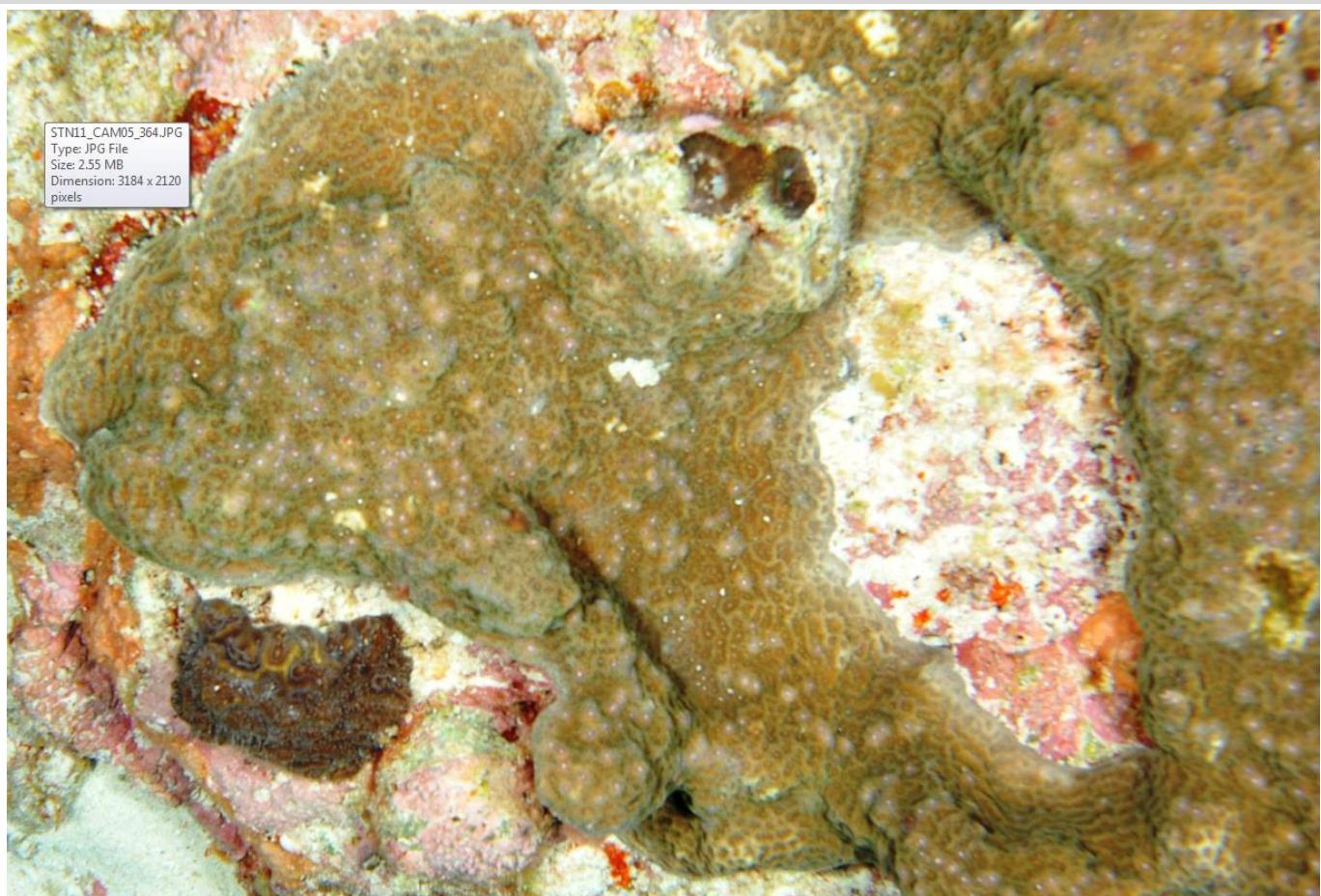


Leptoseris aff mycetoseroides

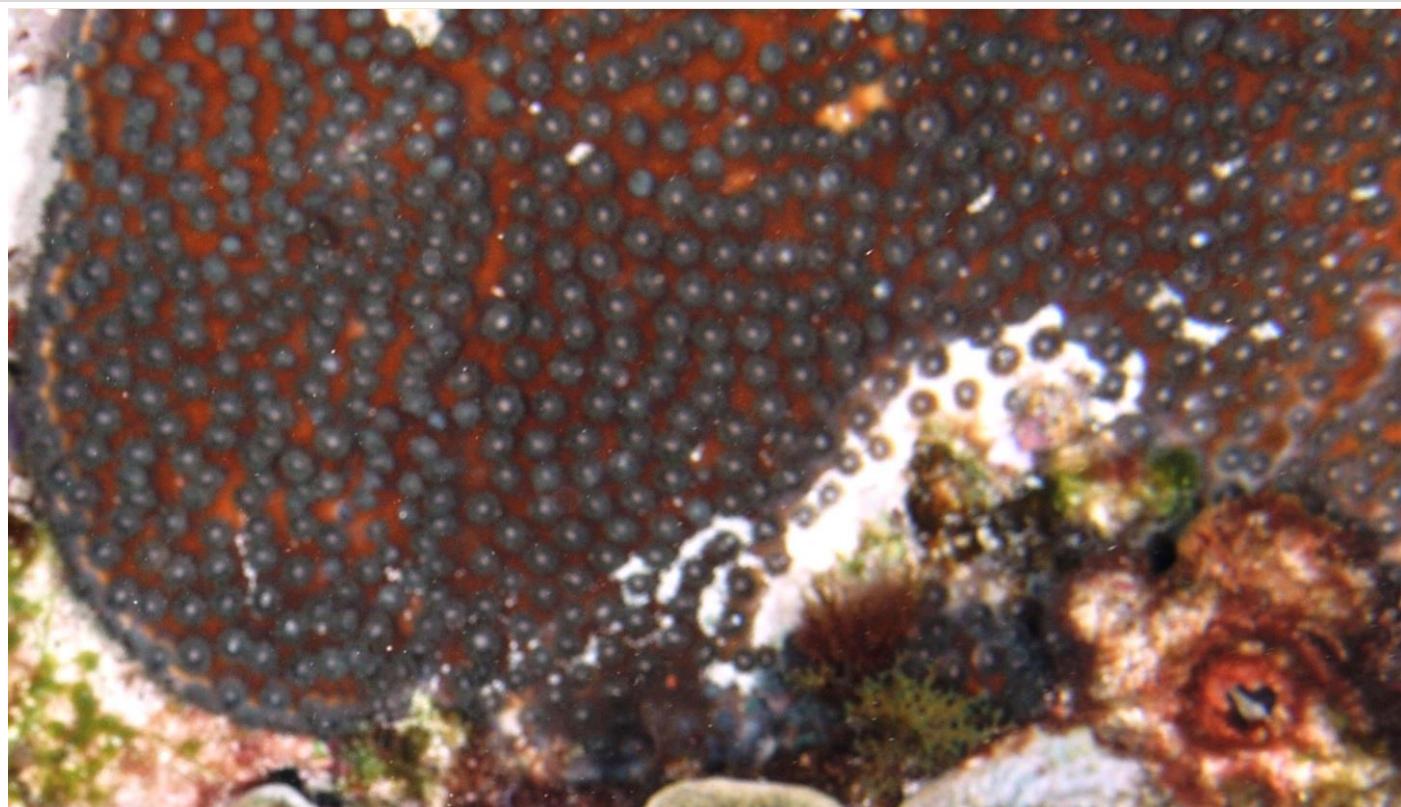


Pavona cf explanulata



Coscinaraea cf columna

Duncanopsammia cf peltata

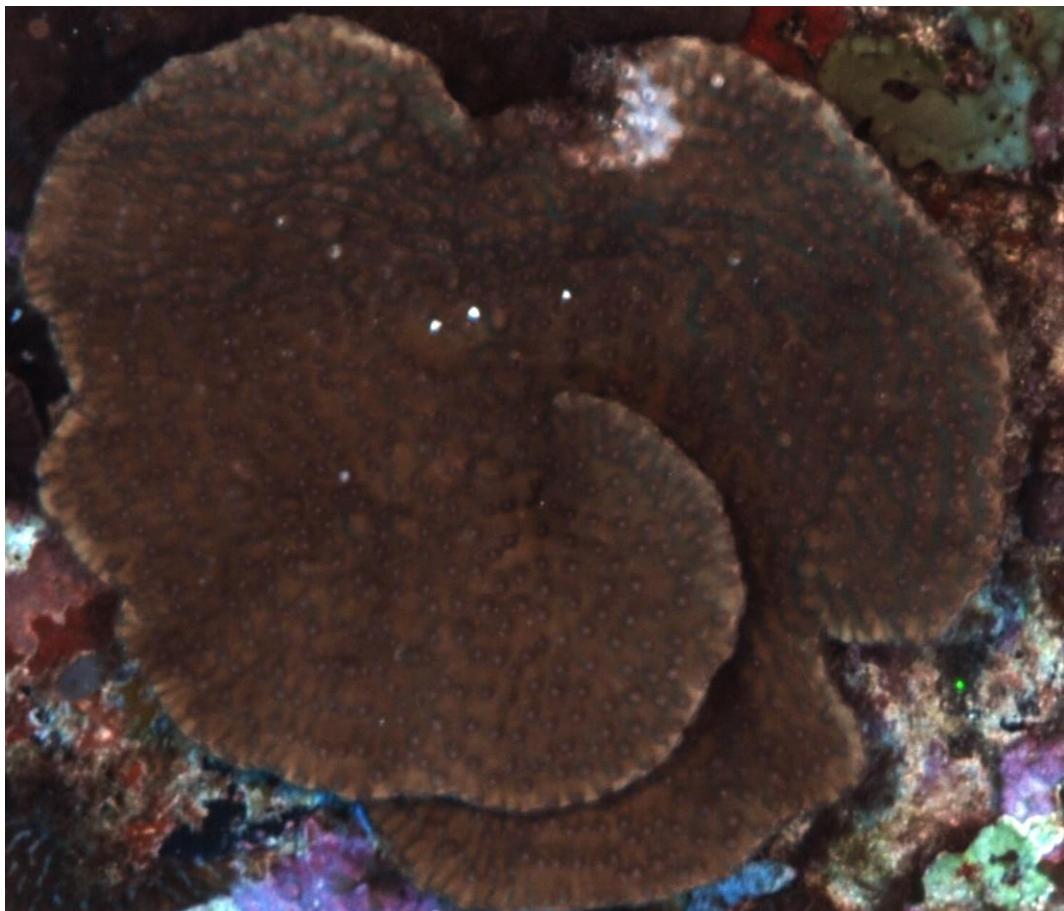
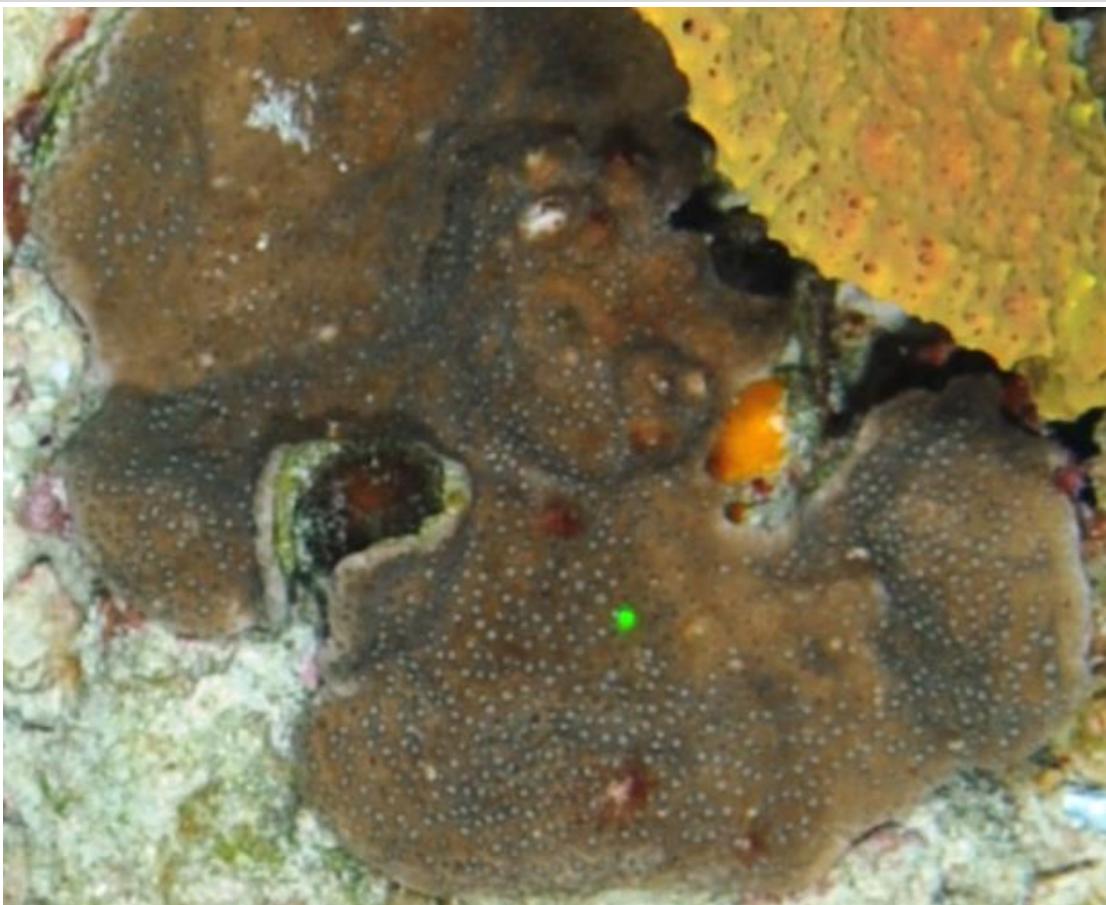


Turbinaria cf frondens



Turbinaria cf mesenterina



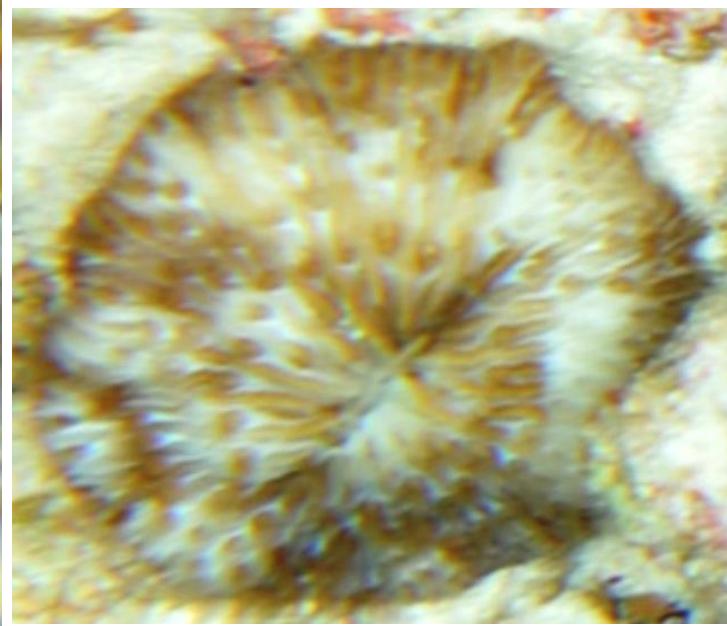
Turbinaria cf patula*Turbinaria cf radicalis*

Cycloseris aff costulata

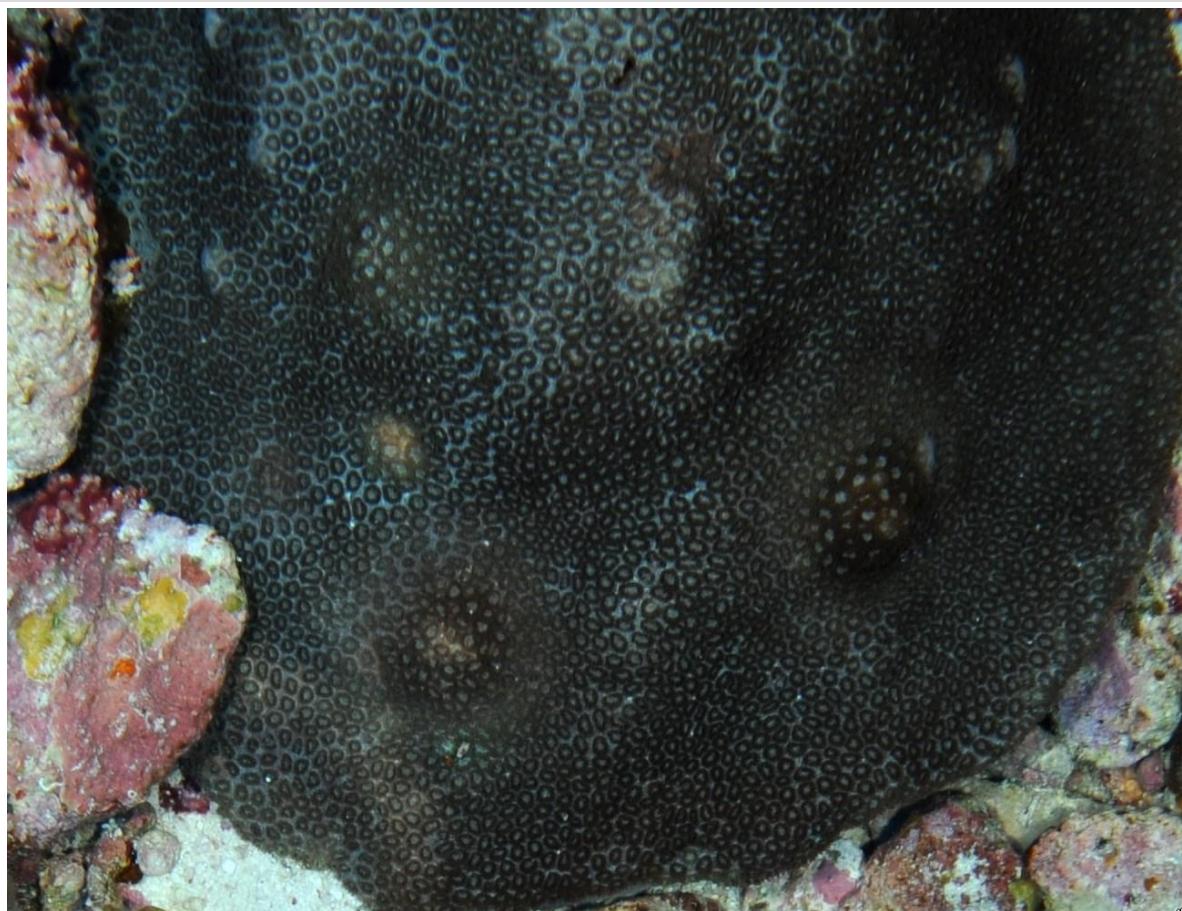


Cycloseris aff distorta

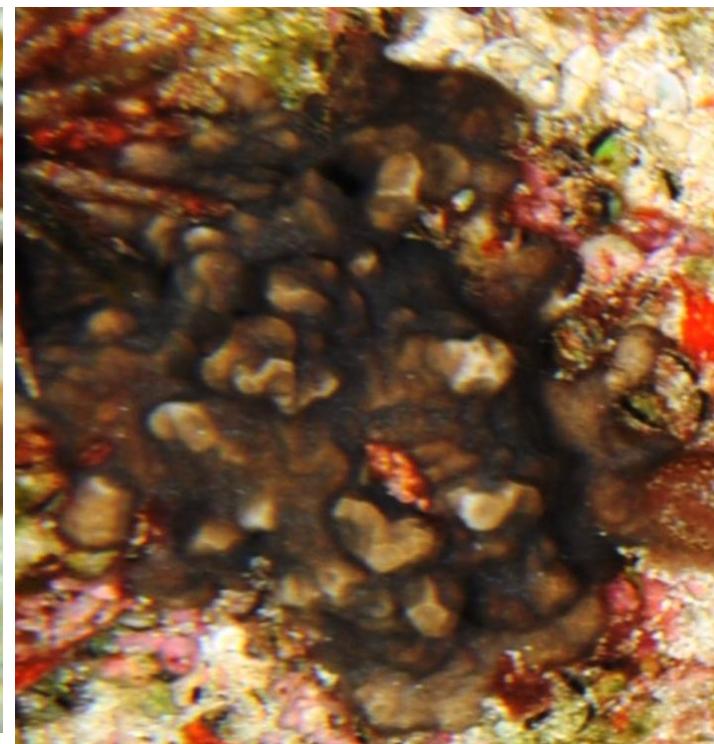


Cycloseris aff tenuis*Cycloseris cf wellsi*

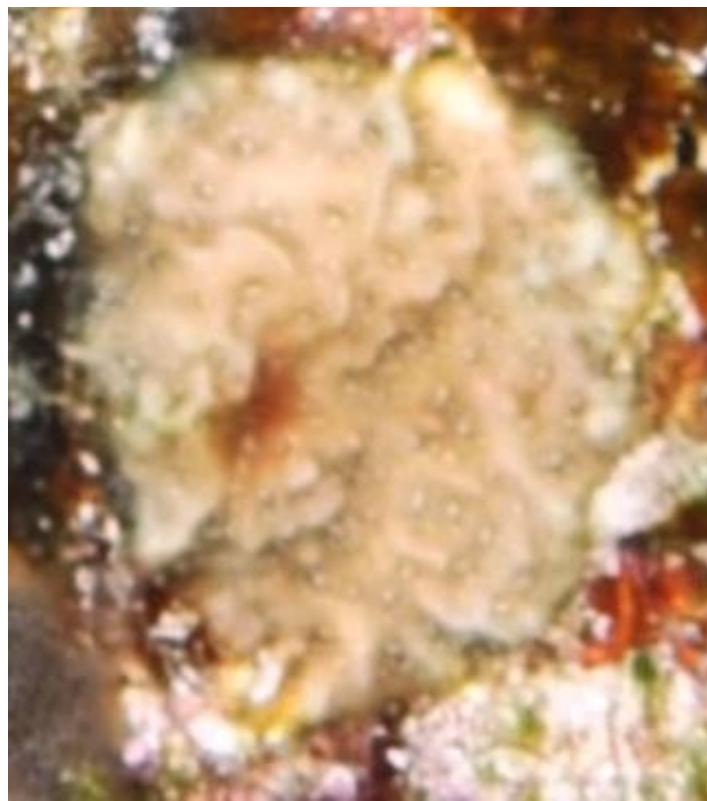
Lobactis aff scutaria

Plesiastrea peroni

Psammocora cf contigua



Psammocora cf profundacella



Acanthastrea cf echinata



Echinophyllia cf aspera



Echinophyllia cf aspera



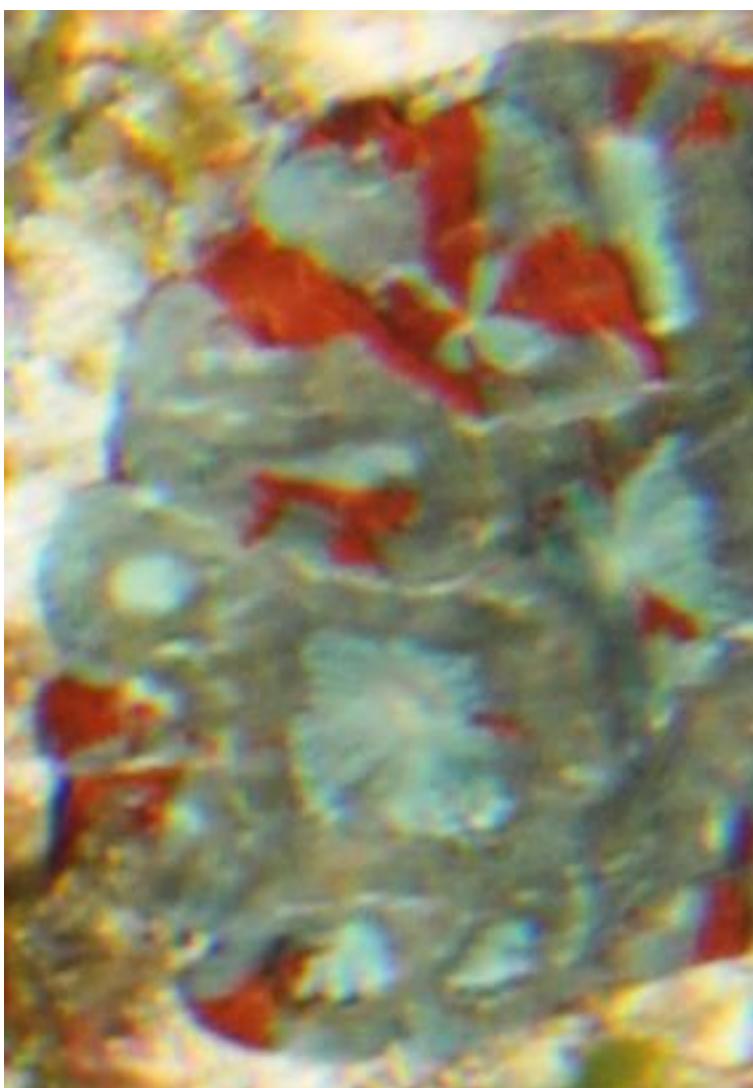
Homophyllia cf australis



Homophyllia bowerbanki

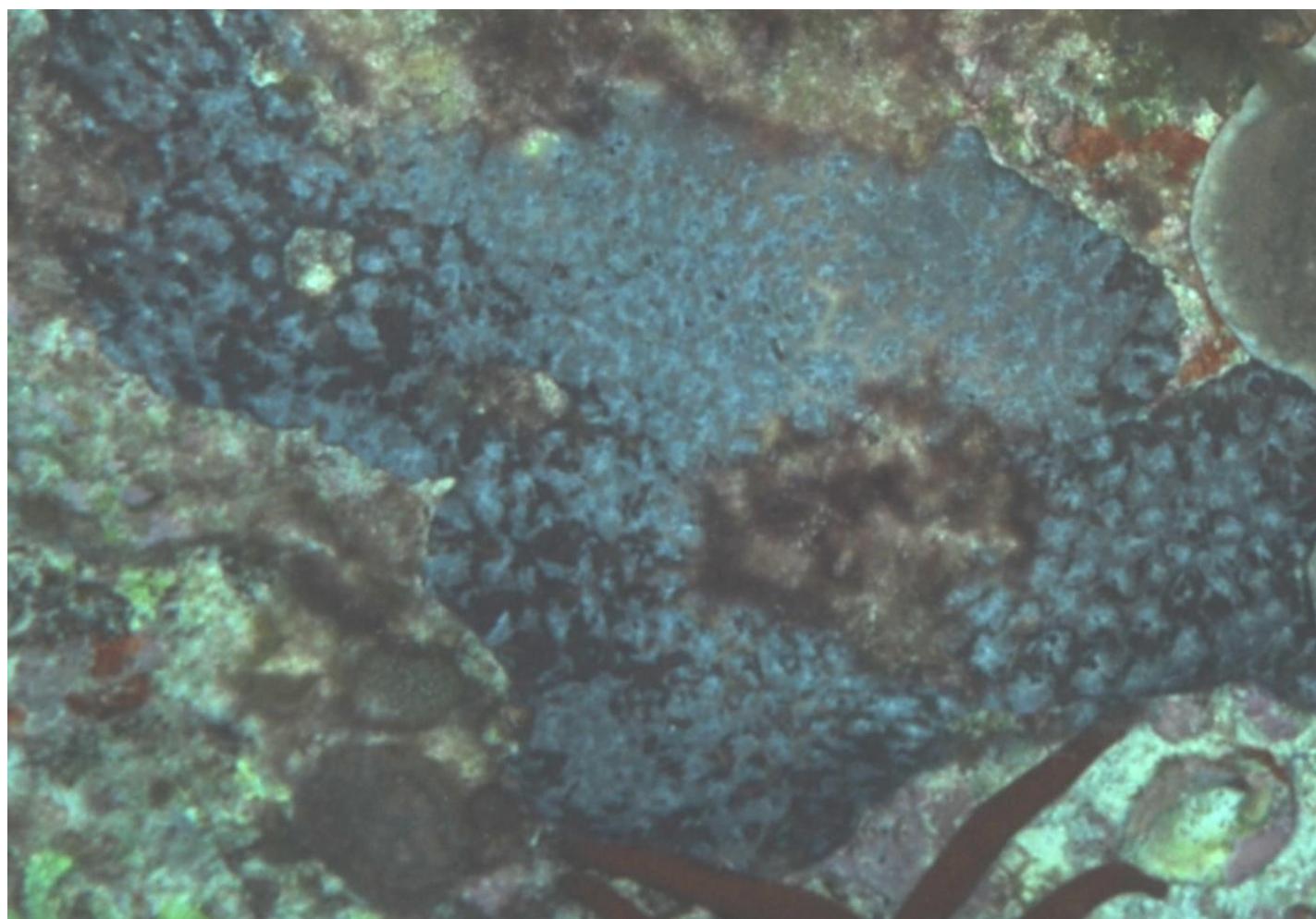


Homophyllia bowerbanki

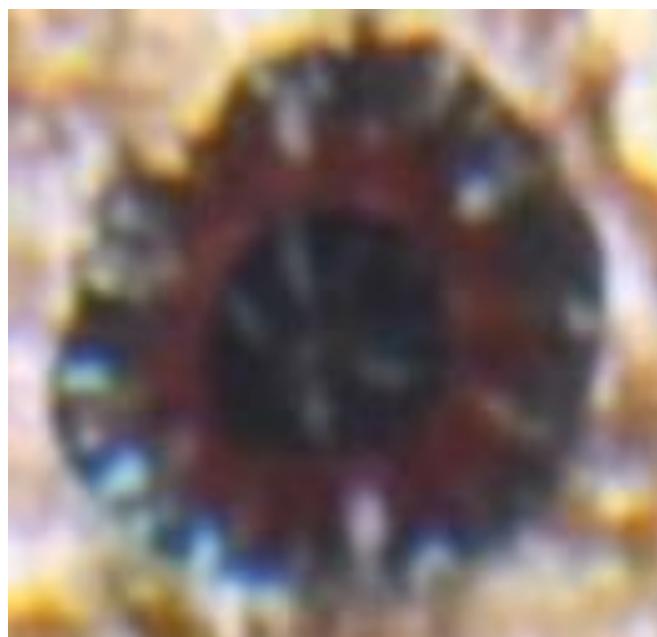


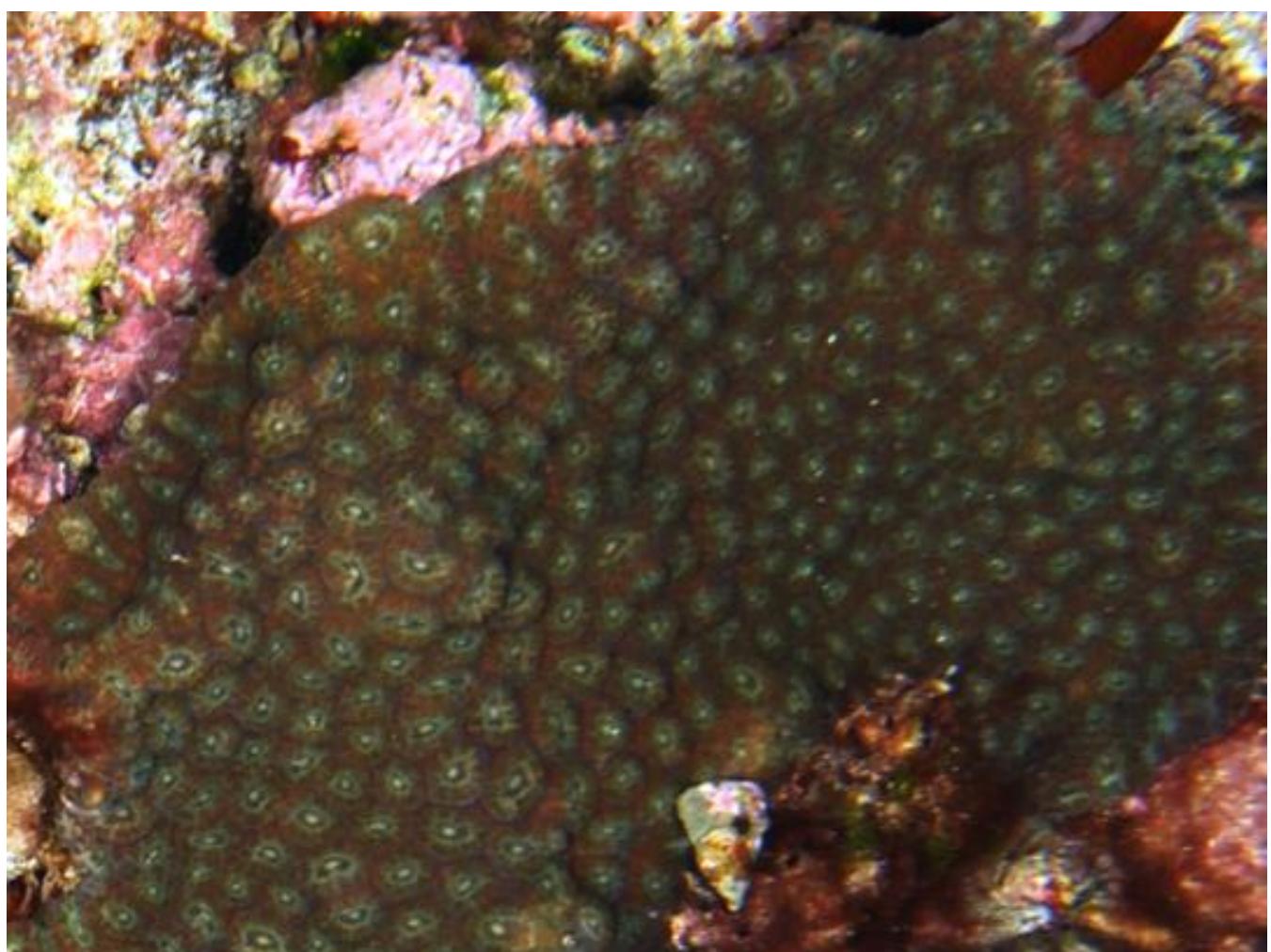
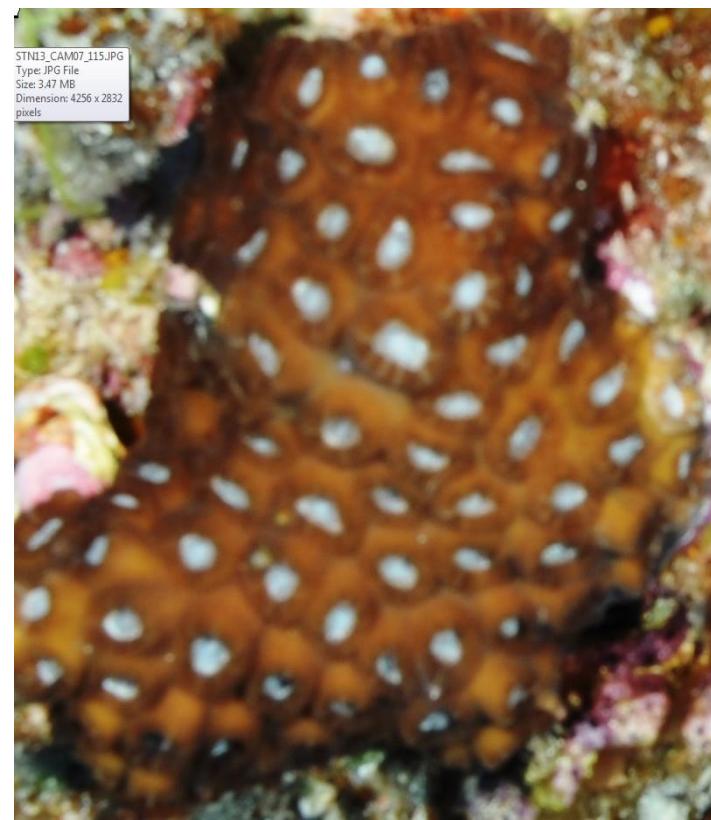
Homophyllia aff bowerbanki

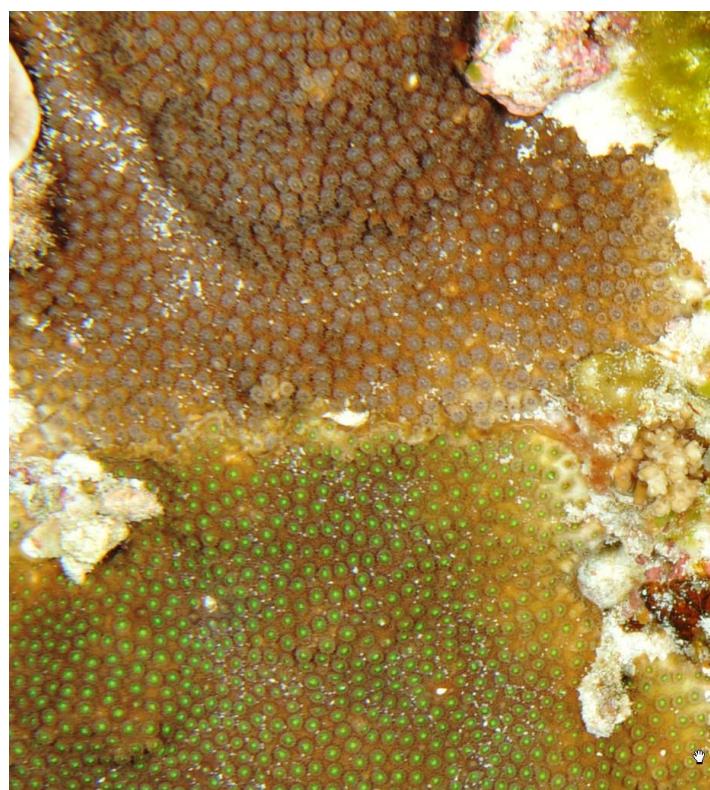
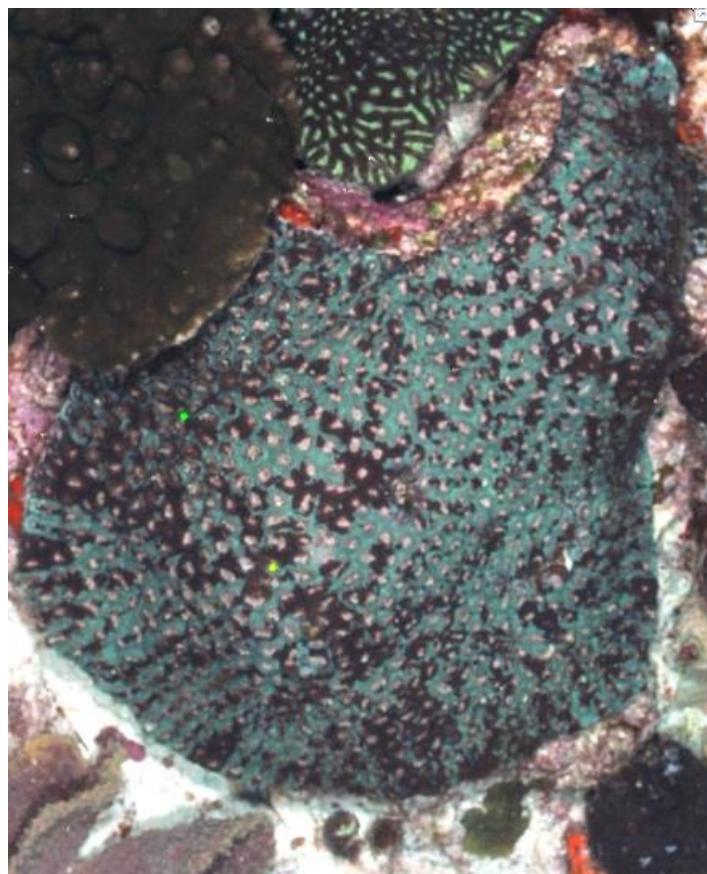
Micromussa lordhowensis



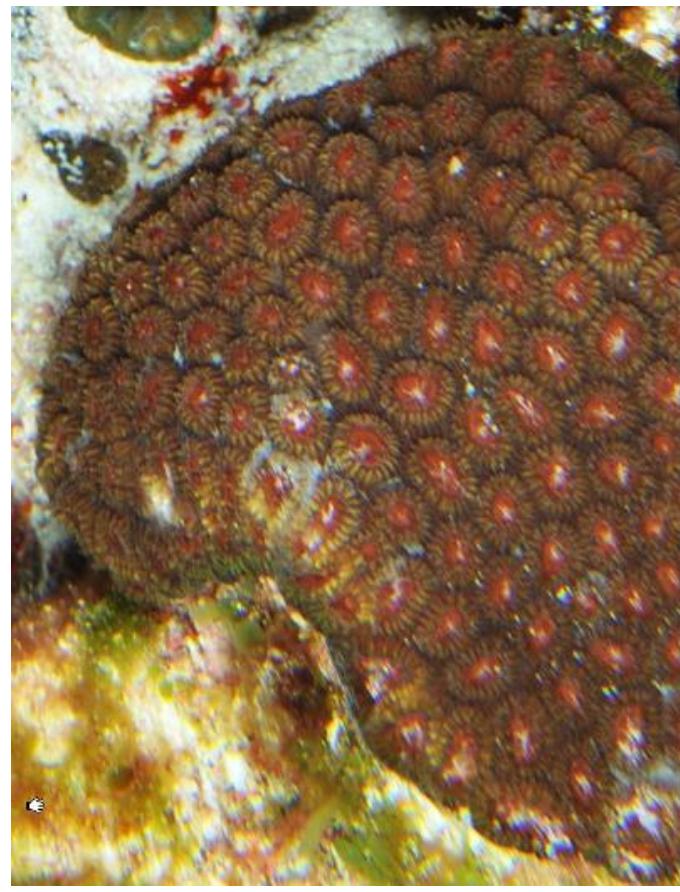
Micromussa pacifica



Astrea cf curta

Cyphastrea salae*Dipsastraea aff favus*

Dipsastraea aff matthai

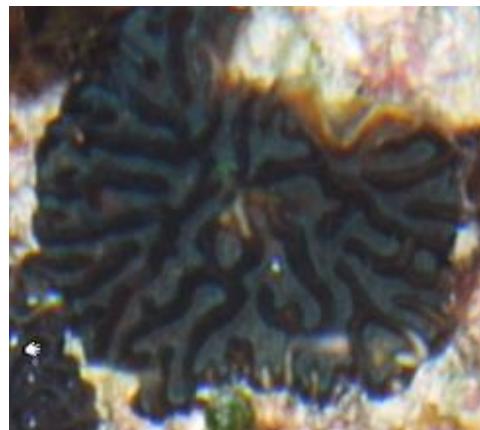


Dipsastrea cf pallida



Hydnophora cf exesa



Paragoniastrea cf benhami

Paragoniastrea cf russelli

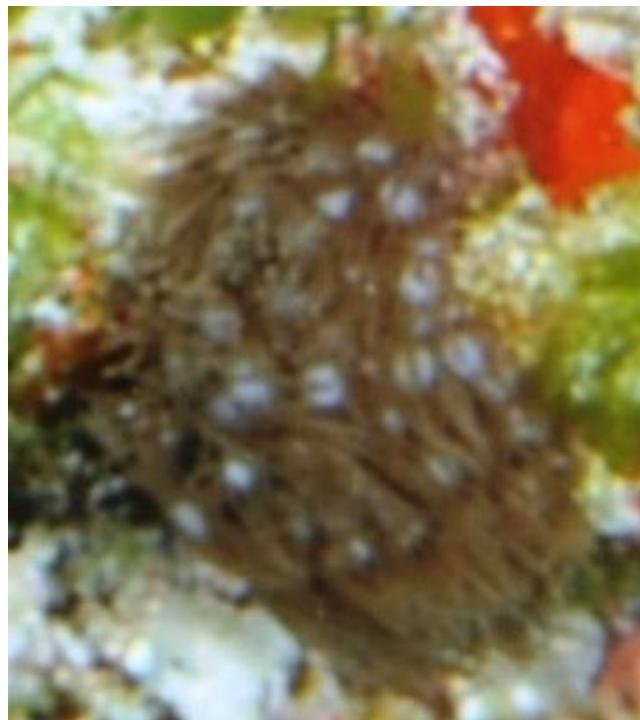


Platygyra cf sinensis



Pocillopora cf damicornis*Stylophora aff pistillata*

Goniopora sp_1



Porites encrusting



Porites massive

