Analysis Log - Key to Video analysis symbols.

Each analyzed video has the following columns added to the Excel data file.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| DomSub | 2nd Sub | E | P | S | Barren | Comment |
|  |  |  |  |  |  |  |

Substrate categories - divided into Dominant substrate (DomSub) and subdominant substrate (SubDom Sub).

* DomSub occupies the majority of the substrate in the video
* SubDom Sub is the next most frequently observed substrate (SubDom Sub allocated value of ‘0’ if there exists 100% coverage by DomSub

Substrate types - originally I attempted to use the categories used on the dive transects. However this quickly became unworkable and several groupings were made. The types are:

Symbol Represents Explanation

R Reef used when either or a combination of light levels, algal cover or video

camera height above the bottom make further discrimination of the substrate type impossible.

RF Reef Flat this is a combination of FR (Flat reef) and VLB (Very Large Boulders)

used in the dive transects. Used to denote any or a combination of the following substrate types; flat, undulating, or stepped rock surfaces, vertical walls and the upper surfaces of very large boulders where no undercut or relief is visible. Also used for boulders buried in sand where no undercut or relief is visible.

RB Reef Boulder a combination of LB (Large Boulder) and SB (Small Boulder) categories

used in the dive transects. RB denotes any reef composed of boulders where the undercut or relief is visible. The boulder types were grouped as the distinction between these size types was difficult to discern accurately on video.

C Cobble denotes a substrate with small rounded stones approximately 10-50cm in

diameter.

S Sand denotes sand and soft sediment substrates, where particle size is

not apparent on the video.

P Pebble denotes a substrate with small stones approximately 5-10cm in

diameter.

G Gravel denotes a substrate with small stones approximately 0.5-5cm in

diameter.

Algal Types - following the substrate columns are 1-4+ columns with single letter headings. Each column is for one algal species as defined below:

Symbol Species

E *Ecklonia radiata*

P *Phyllospora comosa*

S *Sargassum* sp.

M *Macrocystis pyrifera*

D *Durvillaea potatorum*

L *Lessonia* sp.

Ca *Caulerpa* sp.

Cy *Cystophora* sp.

Pe *Perithalia* sp.

Cm *Carpoglossum confluens*

Algal Cover - in each of the algal type columns the following letters have been used to denote the percentage cover of that species.

Letter Explanation

D Dominant algal species, >80% of canopy

C Common algal species, 40-80% of canopy

R Rare algal species, <40% of canopy

0 Algal species absent

Barrens - the barrens have been divided into four (4) categories as described below:

Letter Meaning Patch Size % of video transect % algal cover

B Barren >10m dia 100% <15%

BD Barren dense <10m dia >40% <15%

BC Barren common <10m dia 20-40% <15%

BR Barren rare <10m dia <20% <15%

0 Barren absent

Note: % of video transect equals the % of barren visible on the video at that time.

Depth - original data is mixed with extrapolated data. Original data points are in black numerals in cells with white backgrounds. Extrapolated data is in black numerals in cells with red or gray backgrounds (depends on computer viewed on).

Extrapolated depths calculated as follows:

= (previous cell)±(difference between original data points)/(no. of cells between original depth)

e.g. for the following recorded values

Cell No. Depth

D12 23.5

D27 16.5

at Cell No. D13 this formula entered: = D12-7/15

this formula is then copied and pasted in the remaining blank cells D14-D26 inclusive.

Note: the depth column has been formatted to show only one (1) decimal place.

NB: Depths have not been adjusted to compensate for the difference in position of sounder (on boat) and the video camera (on tow line 40-55m long behind boat).

Backup Locations:

Analysed files are denoted by adding ‘A’ to the front of the video file name.

e.g. Sonerat1.xls becomes Asonerat1.xls when analysed.

Johnson Lab Computers:

Spatial has backups in folders in the following cascade.

SpatialH - Urchin - VideoAnalyses - Schouten (or other site names) - files

- StHelens - files

Spaceman has backups in folders in the E drive in the following cascade.

Urchin - VideoAnalyses - Schouten - files

- StHelens - files

Roy’s Room:

Laptop (Gateway 2000 Solo) has backups on the D drive in the following folder cascade.

Urchin FRDC - videotows - Schouten - AnalysedTows - files

- StHelens - AnalysedTows - files

Photo Lab (Rm 17).

Laptop (Texas Instruments, TravelMate 4000 WinDX2) has backups on the desktop in the following folder cascade.

Desktop - VideoAnalysis - Schouten - files

- StHelens - files