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spectrum as it does in the wavelengths to which natural color films are sensitive (Colwell 1984). Aerial CIR has been widely used to classify terrestrial plant communities (Ho-

(AFDW) of invertebrates was determined from 35 randomly selected invertebrate cores by drying in an oven at 70°C for 24 h to obtain dry weights, and then incinerated for 3 h at 550°C to determine AFDW (deBoer and Prins 2002). Sediment cores were frozen, thawed, and dried for 24 h at 65°C for analysis of sediment color. The hue of an infrared photograph of any sediment may be affected by substrate color, because of the semi-transparent nature of the diatom biofilm layer. To correct for this effect, infrared photographs were also taken of the sediment cores after they had been dried and placed in weigh boats. The hue of the photograph of the mud surface was standardized to that of the sediment hue.

Chlorophyll Analysis

The methods outlined in Sutherland *et al.*

tionship between chlorophyll concentration and macro invertebrate biomass (r^2_{33} = 0.02, n.s.) or between the hue of each infrared photograph and macro invertebrate biomass (r^2_{33} = 0.002, n.s.).

The mean number of invertebrates was 76 individuals per core (N = 186, range; 1-462). The major taxa recovered were polychaetes,

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Appendix 1. The mean density per m^2 of invertebrate taxa collected at each sampling site (standard error shown in brackets).

				Site				
Phylum	Class	Order		Boundary Bay (N = 45)	Cordova Bay (N = 14)	Comox Harbor (N = 15)	Cowichan Bay (N = 14)	Deep Bay (N = 11)
Sarcomastigophora	Granuloreticulosea	Foraminifera		962 (297)	403 (403)	125 (125)	10224 (5569)	0 (0)
Nematoda	Adenophorea			44952 (5703)	13318 (3265)	8538 (2118)	7668 (4115)	17807 (6634)
Mollusca	Bivalvia			42 (42)	0 (0)	502 (222)	135 (135)	342 (229)
	Gastropoda			841 (59)	134 (134)	0 (0)	0 (0)	171 (171)
Annelida	Polychaeta			215345 (31837)	403 (291)	5273 (885)	1614 (587)	1198 (730)
	Branchiopoda	Cladocera		460 (379)	0 (0)	0 (0)	0 (0)	0 (0)
Arthropoda	Ostracoda			24443 (3960)	0 (0)	1255 (397)	807 (548)	1712 (593)
	Copepoda			10087 (2482)	2287 (1875)	8161 (1431)	1345 (800)	3253 (883)
	Malacostraca	Amphipoda	*Corophium*	18500 (3617)	0 (0)	13937 (3256)	403 (403)	1883 (803)