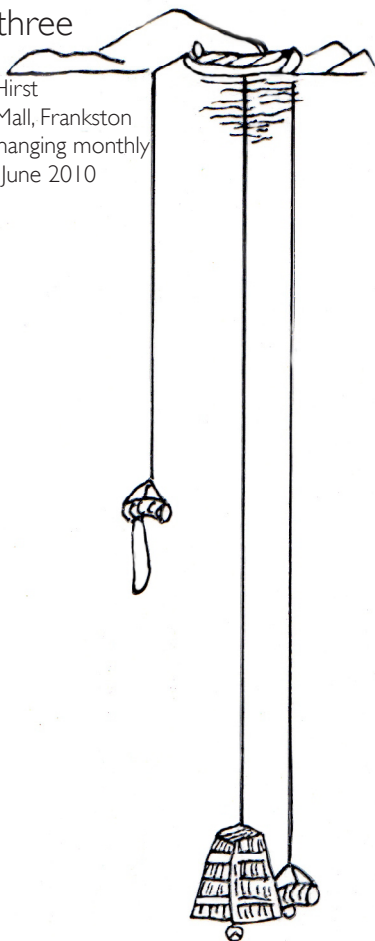


SHIPS IN THE NIGHT

issue three

Joy Hirst
White Street Mall, Frankston
4 light boxes - changing monthly
January to June 2010



pelagic descriptive of organisms that inhabit open water, as opposed to benthic this is sometimes divided into five separate ecological **zones** which are proceeding from the surface to the bottom the **epipelagic mesopelagic bathypelagic abyssopelagic and hadopelagic zones** - **epipelagic zone** the epipelagic **zone** extends from the surface downward as far as sunlight penetrates during the day it is a very thin layer less than 100 meters thick in the eastern parts of the oceans in regions of upwelling and high productivity and up to 200 meters thick in clear subtropical areas the endemic species of this **zone** either do not migrate or perform only limited vertical migrations although there are many animals that do invade the epipelagic **zone** from deeper layers during the night or pass their early development stages in the photic **zone** the epipelagic zone overlies the mesopelagic **zone** euphotic **zone** in the ocean, the sunlit layer from the surface to the depth of 1% light level wherein most of the primary productivity takes place the depth varies geographically and seasonally and can range from a few meters in turbid highly productive waters near the shore to around 200 m in tropical waters the ocean average is around 100 m it is a **zone** with sharp gradients in illumination temperature and salinity and overlies the aphotic **zone** it is also known as the photic **zone** aphotic zone the region below the euphotic **zone** where no light is available for photosynthesis - **mesopelagic zone** this is the uppermost aphotic **zone** from 200 to 1000 m deep where little light penetrates and the temperature gradient is even and gradual with little seasonal variation this **zone** contains an oxygen minimum

layer and usually the maximum concentrations of the nutrients nitrate and phosphate this overlies the bathypelagic **zone** and is overlain by the epipelagic **zone** - **bathypelagic zone** this is the **zone** starting from 100 to 700 m deep coinciding with the upper limit of the psychrosphere at the 10°C isotherm the number of species and populations decreases greatly as one proceeds into the bathypelagic **zone** where there is no light source other than bioluminescence temperature is uniformly low and pressures are great this overlies the abyssopelagic **zone** and is overlain by the mesopelagic **zone** this is the lowest of the three vertical sections of the pelagic part of the ocean the other two being the upper euphotic and the middle mesopelagic bathyal **zone** the marine ecologic **zone** that lies deeper than the continental shelf but shallower than the deep ocean floor ie those depths corresponding to the locations of the continental slope and rise the depth range is from 100-300 m down to 1000-4000 m depending on such variables as the depth of the shelf break the depth of light penetration and local physical oceanographic conditions **abyssopelagic zone** there is a pronounced drop in the number of species and the quantity of animals as one passes into this **zone** it is separated from the overlying bathypelagic **zone** by the 4°C isotherm and from the underlying hadopelagic **zone** at about 6000 meters the distinction between pelagic and benthic species can be difficult to ascertain in this **zone** - **hadopelagic zone** this is the lowest of the levels and is separated from the overlying abyssopelagic zone at about 6000 meters



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