Biogeography of the Deep Octocorals of the North Pacific
Figure 1. A schematic of NPIW circulation from the source formation regions “●”, Okhotsk Intermediate Water (OIW) and Gulf of Alaska Intermediate Water (GAIW), to the Indonesian Throughflow (ITF). The exporting transport of $2.7 \pm 0.2$ Sv is a basin-wide mean (see You et al. [2003] for details). The thick dashed line (in red) marks transformation of OIW and GAIW by cabbeling to the subtropical NPIW along the SATFZ (see You [2003] for details).
Fig. 1. The density anomaly (solid line in blue) across the SATFZ (defined by density ratio $R_p=1$ in orange colored line) from (A) the lower main thermocline, (B) upper NPIW to (C) NPIW core with zero anomaly (thin solid line). Cabling maximum ($> -0.2 \times 10^{-7} \text{ m s}^{-1}$) is shaded (in gray). Dotted line is the subtropical NPIW domain defined by WTU (You et al., 2000)
Surface intermediate layer circulation

Line is from 37 N in the West to 40 N in the East
Upper deep layer circulation
All octocoral bathyal records
Chrysogorgia
(white, undescribed)
Metallogorgia (circle)
Iridogorgia (sq.)
Metallogorgia, all species
Callogorgia yellow
Narella red
Thouarella (red)
Plumarella (yellow)
Arthrogorgia
(Japan species differs from Aleutian species)

Fannyella
Keratoisididae, the bamboo corals
Acanella
Keratoisis (most Undescribed)