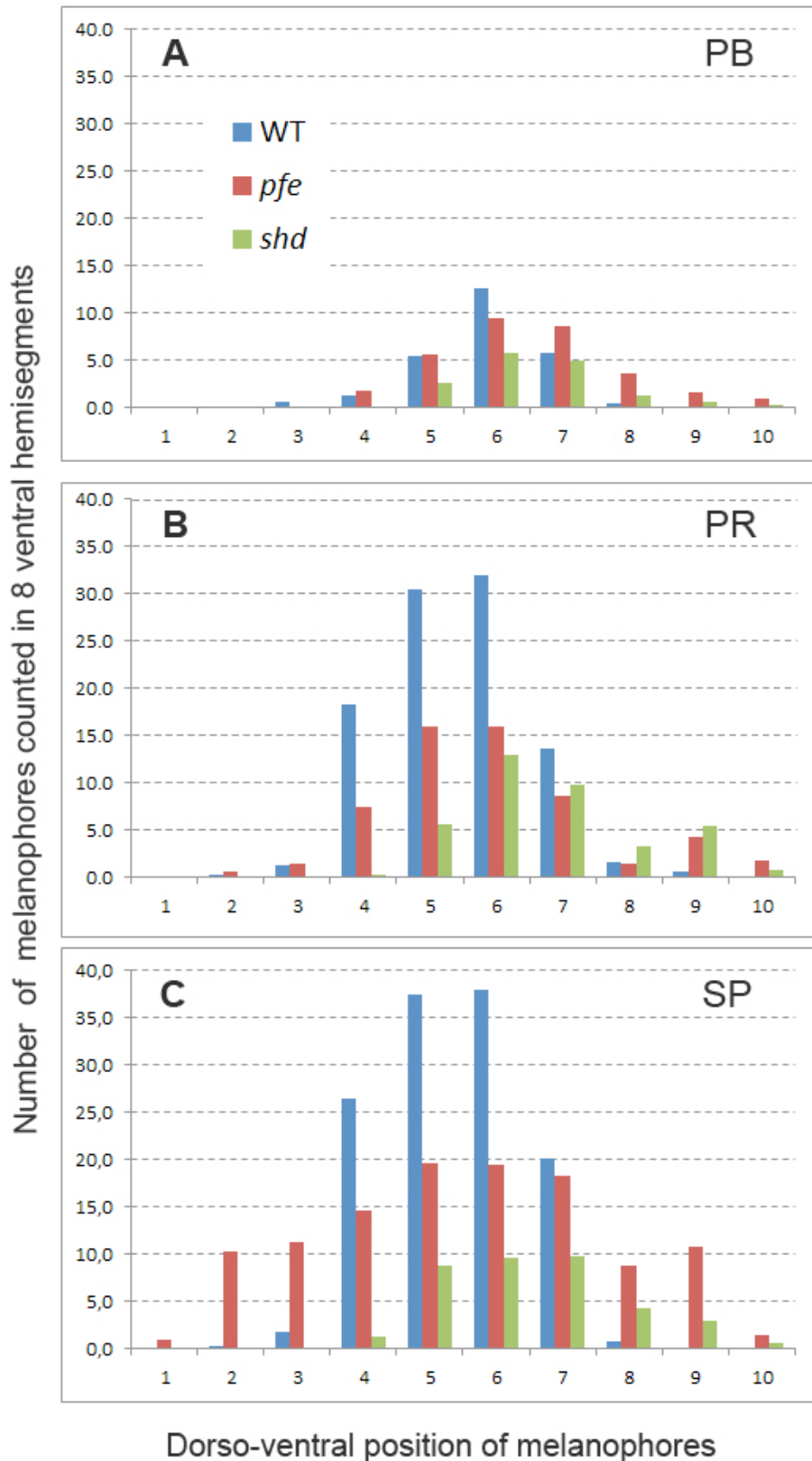


**Fig. S1. Dorsal view of wild type and iridophore mutants.** Wild-type (A), *rse* (B) and *shd* (C) adult fish. In the mutants, the number of melanophores in the stripe along the dorsal midline is reduced, and they fail to aggregate properly. Anterior is top. Scales are removed, but many small epidermal melanophores of the scale pockets are still visible. The larger melanophores directly at the midline are dermal.



**Fig. S2. Distribution of melanophores during development.** To assess the distribution of melanophores during 1V stripe formation, the region between the horizontal myoseptum and the base of the anal fin was subdivided into ten horizontal sections, with section 1 being just below the horizontal myoseptum. The number of melanophores in each section was counted for eight segments above the anal fin. **(A-C)** Stage PB-SP. In wild type and mutants, melanophores appear medially in the ventral area. In wild type, melanophores aggregate and shift towards the positions of 1V. In *shd* mutants, melanophores fail to aggregate; they spread towards ventral positions. In *pfe* mutants, melanophores additionally spread towards dorsal positions owing to their ability to enter regions of dense iridophore in the absence of xanthophores. The mean of melanophore counts of five individuals is indicated for each genotype and time point. Melanophores belonging to the medial or ventral larval stripe have been excluded.