**Figure S1. Crossing scheme of the F2 families PN1-33 and PN34.** Half-sib family PN1-33 originated from 4 grandparents. One group of F2 offspring were produced by crossing several F1 females from a cross in one direction with an F1 male from the cross in the opposite direction. The other group was produced in the same way but with F1 females and F1 male from the crosses of the opposite directions. Full-sib family PN34 originated from two grandparents. The F2 offspring were produced by crossing several F1 females with a full sib F1 male.

**Figure S2. Spawning decisions of F2 hybrid females**. The figure shows the spawning decisions of wild type females and the F1 hybrid females. Spawning decisions were determined by microsatellite DNA paternity analyses. Above the line y=0 is the number of spawning decisions with *P.* sp. “pundamilia-like”, and below the line is the number of spawning decisions with *P.* sp. “nyererei-like”. The upper graph shows spawning decisions of wild type *P.* sp. “pundamilia-like” females (left) and *P.* sp. “nyererei-like” females (right). The lower graph shows spawning decisions of F1 hybrid females of crosses in both directions. To the left are the females with a *P.* sp. “pundamilia-like" mother and to the right are females with a *P.* sp. “nyererei-like” mother.

**Figure S3. Spawning decisions of F2 hybrid females**. The figure shows the 69 F2 hybrid females with ≥ 5 spawning decisions used in the analyses, as well as the females with < 5 spawning decisions. Spawning decisions were determined by microsatellite DNA paternity analyses. Above the line y=0 is the number of spawning decisions with *P.* sp. “pundamilia-like”, and below the line is the number of spawning decisions with *P.* sp. “nyererei-like”. Each graph show F2 females fathered by a single F1 male. The two upper graphs show the half-sib family PN1-33 and the lower graph the full-sib family PN34. F1 male 1 and 3 were from crosses in the same direction (*P.* sp. “pundamilia-like” mother and *P.* sp. “nyererei-like” father) whereas the females crossed with F1 male 2 and 3 were in the same direction (*P.* sp. “pundamilia-like” mother and *P.* sp. “nyererei-like” father). The electronic supplemental material figure S1 shows the crossing scheme of the F2 families PN1-33 and PN34. In PN1-33, broods were kept separate (Brood) and hence some broods may have had the same mother. In PN 34 broods were pooled into the same aquaria and hence brood and mother is not known.

**Figure S4. Male nuptial colour segregation in F2 half-sib family PN1-33.** The parental types were almost fully recovered in several F2 males. Brood number is shown above the males. Male1 was a cross between a *P.* sp. “pundamilia-like” female and a *P.* sp. “nyererei-like” male whereas male 2 was a cross in the opposite direction. Both males were mated with F1 females from a cross in the opposite direction than themselves (i.e. sisters of the other male). Spawning decisions of half-sib and full-sib sisters are shown in figure S3.