



Supplementary Figure S1. Mesh vivarium used for maintaining pairs of *Pristimantis latidiscus*. The set up contains a small box filled with moist mud, multiple layers of leaf litter, several branches, two bromeliads and a piece of rotten wood (compare text).

Supplementary Table S2. Development of *Pristimantis latidiscus* embryos in eggs kept on tea filter after day 11 (compare method section, Figs 3, 6 and Table 2). Key changes, traits and observations are highlighted in bold. Day = days after oviposition. TS = stage after TOWNSEND & STEWART (1985). If key traits don't unanimously indicate one TS-stage, the respective TS is indicated by arrows behind the conflicting traits.

Day	TS	Comments on development
13	9	No distinct digits on front limbs Body wall encompasses ca 1/3 of the yolk Tail fin bigger; strong blood flow Melanophores denser on trunk; far less than in soil incubated eggs of the same age (see Table 2); less pigmentation on hind-legs and body wall; no pigmentation of fin Endolymphatic calcium deposits (ECD) triangular, with extension towards the eye; slightly larger in size.
15	10–12	Front limbs show first signs of differentiation ; poor development of the hind limbs ►TS10 Body wall encompasses max 1/2 of the yolk ►TS10 Largest observed size of the tail fin Trunk and head slightly pigmented ECD joined at midline of the embryo ►TS12 Difference of developmental stage between tea filter - and soil-eggs grows further (Fig. 6g).
17	10–12	Fingers on front limbs distinct ; hind limbs far developed; toe length ca. 1/2 of final size ►TS11 Body wall encompasses ca 1/2 of the yolk ►TS10 Trunk and head heavily pigmented ECD joined at midline of the embryo ►TS12.
19	10–12	No developmental change First signs of fungal infection .
21	11–12	Toe length ca. 2/3 of final size ►TS12 Body wall encompasses most of the yolk ►TS11.
23	11–12	Separation of the tail in two fins visible Embryos far smaller than soil incubated animals during the same stage The eggs were incubated for another four days but showed almost no further development; all eggs subsequently died off.