

Erratum

## Developing *Porphyra*/salmon integrated aquaculture for bioremediation and diversification of the aquaculture industry

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The opening paragraph of the printed version of the Discussion to this paper, published in

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had several numerical errors, which are corrected here.

An emerging consequence of increasing finfish aquaculture activities is significant loading of inorganic nutrients in coastal waters (Beveridge, 1987). Ackefors & Enell (1994) estimated that 9.5 kg P and 78 kg N per tonne of fish are released into the water column per year when the feed conversion coefficient is 1.5 and the contents in the feed are 0.9% P and 7.2% N. With improvements in feed composition, digestability, and feed conversion efficiency in recent years, the discharge is probably now reduced to 7.0 kg P and 49.3 kg N per tonne of fish per year (Ackerfors, pers. comm.). If considering only the world farmed salmon production that expanded to 644,092 t in 1996 (New, 1999), this represents a worldwide nutrification of coastal waters by 4,509 t P and 31,754 t N. It is obvious that locally each habitat can carry only a certain level of monoculture before dis-equilibrium develops. When aquaculture exceeds the carrying capacity of coastal waters, severe disturbances – including diseases, eutrophication, harmful algal blooms, and green tides – can occur in the receiving waters (Folke & Kautsky, 1989). Moreover, intense biofouling of fish cages represents additional problems for the finfish aquaculture industry itself (restriction of water/oxygen/nutrient circulation patterns and displacement of cages and their anchoring systems).