

# **Optimum Feeding and Dietary Formulation for Ornamental Fish Species**

Kay E. Earle and A.I Macartney

*Waltham Centre for Pet Nutrition, Leicestershire, England*

The formulation of adequate diets for organisms in an aquatic environment gives a greater challenge to those involved in their care, compared to terrestrial species. The aim of this paper was to highlight all the factors which should be considered when formulating a maintenance feeding program for ornamental fish. The provision of energy and other nutrients to poikilothermic animals can take many forms and is generally chosen by reference to their field ecology. However, it is pertinent to note that feeding diets high in protein calories to herbivorous and omnivorous fish may result in increased tank pollution with no real gain in food utilisation. Feeding strategies and anatomical differences between fish species make formulation of one diet for a community of species quite difficult. In these circumstances differences in dietary format can be employed to deliver food to all fish in the community. The quality of ingredients in the food will have an effect on the adequate delivery of key nutrients to the fish especially in relation to all the water-soluble components of the diet. Care must be taken to overcome the leaching properties of certain foodstuffs especially in an aquarium where the volume of water is large. Once the nutrients are released from the diet into the water they are lost to the fish.

Key words: ornamental fish, diet, formulation, environment, feeding strategies