



In this issue of Quest you will find the results of our first competitions. Congratulations to the winners, who have already received their prizes, and thanks to all of you who entered. Thank you, too, for sending in the survey slips. They will help us a great deal when planning your future Quests.

Don't forget to keep sending us your ideas, and there's another competition for you this time. Tui has an important message for you as well.

Piers Hayman

Famous Frogs

You really need to be someone extra special before having your portrait on a stamp — particularly if you are a frog.

Here in New Zealand, the three kinds of native frog that still survive are *all* special, because they belong to what is considered to be the oldest family of frogs in the world. Like their salamander ancestors, they have muscles with which to wag their tails, even though as adult frogs they no longer have any tails to wag. Also, the joints between their vertebrae, or sections of the backbone, are shaped in a special way, which, apart from one related group in North America, is quite unlike the backbone of any other frog alive today.

Another unusual feature of our native frogs is that they seem to have adapted to a life away from still water. Their eggs are laid on land, and the tadpoles do not swim about in the water but develop inside the eggs to emerge as baby froglets. The adult frogs do not live in the water either, and only one of them has any webbing between its toes at all. Webbed feet are not much use on dry land.

Actually, the land on which they live could hardly be called dry, for they all three prefer cool damp areas where they can creep about under stones or fallen logs. They only venture out at night, and then, more often than not, only in wet weather.

Of the three, Hamilton's frog is the

Hamilton's Frog



New Zealand 24c

Illustration of Hamilton's frog kindly supplied by the New Zealand Post Office.

most special, simply because it is the rarest. It is named Hamilton after Harold Hamilton, a scientist from Wellington's Dominion Museum who made the first formal studies of this frog in 1916. In fact, its first European discovery was made 2 years earlier by Mr R. G. Smith, the son of a lighthouse keeper, so perhaps it should really be called Smith's frog. However, the scientific name was officially registered as *Leiopelma hamiltoni*, and that is how it has remained.

Mr Smith found the frogs living in a boulder bank on Stephens Island in the Cook Strait. At the time the bank was shaded by dense kohekohe forest and the boulders were covered with moss, but in the years that followed the forest was cleared for grazing stock, and the land dried out. No-one seemed particularly interested in the fate of the frogs once they had been identified, and as they had not been found anywhere else, it was assumed that they had all died out after the land was cleared.

In 1949, a Dr Dawbin decided to see whether this was in fact the case, and a

year later he was able to announce to the world that Hamilton's frog had managed to survive. The frogs were still living in their boulder bank, which although now dry and bare on the surface, was able to retain enough moisture deep down between the rocks from mist and rain, to allow the frogs to keep going.

Since then there has been a Wildlife Service programme to protect the frogs and to replant their boulder bank, now known as Frog Bank. There are no other Hamilton's frogs anywhere else on Stephens Island, not even in the remaining patch of kohekohe forest which is only a short distance from the boulder bank. Possibly the rocks are the only place where the frogs are safe from prowling tuataras or burrowing petrels.

In 1961, frogs living in preserved kohekohe forest on Maud Island, also in Cook Strait, were positively identified as Hamilton's frogs. This was a great relief, for the total area of Frog Bank is only about 600 square metres. That is hardly large enough for the entire world population of Hamilton's frogs, even though