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Queensland Department of Printary Industries

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Dear Mr Shaw,

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Gilbert R?

La River Needs Las.

Fisheries Survey of Kidston Dam, Copperfield Rive

In response to your letter of 17 February 1987. I conducted a survey of the Kidston Dam on 13-14 August 1987. The aim of the survey was to determine the fish species present, and to comment on the desirability of supplementary stockings.

Gill nets were set at $4-5~\mathrm{pm}$ near the dam wall, the middle section and the headwaters of the dam. The nets were checked at 9-11 pm. Because of the large number of fish caught, the nets were cleared and taken from the dam at that time.

The following seven species were caught.

- Black bream or sooty grunter, Hephaestus fuliginosus. The black bream is an excellent sport and table fish, which I was told was commonly caught in the dam. It was reasonably abundant.
- 2. Spangled perch, Leiopotherapon unicolor. This is a small fish, growing to a maximum weight of about 600 gm. Larger specimes are good eating. It was extremely abundant in the dam, especially in the vicinity of the inflowing Copperfield River, where many specimens 300-500 gm were caught.
- Bony bream, Nematalosa erebi/ The bony bream is a good prey species for larger predatory species. It was extremely abundant throughout the dam.
- 4. An eel-tailed catfish, Neosilurus (hyrtlii?). Several large specimens, up to 2 kg, were caught at all sites. These fish are very good eating, although catfishes are generally not popular with most fishermen.
- Yellow fin tandan, Neosilurus glencoensis. The yellow fin tandan is a small catfish, growing to 15-20 cm length.
- 6. Banded grunter, Amniataba percoides. / Another small fish, growing to about 20 cm length.

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7. Rainbow fish, <u>Melanotaenia</u> (<u>splendida?</u>). / Although these small fish were not caught in the gill nets, we saw them throughout the lake.

All of these fishes would have been in the river above the dam wall when it was built. It appears that there is now effectively no riverine reaches accessible to the fish, as the river apparently enters the dam at a small waterfall (although I would need to examine the inflowing sections more carefully to confirm this). Nevertheless, it was obvious from the size ranges that all species are now breeding in the dam..

It is likely that there are other small fishes in the dam, which we did not see and which are not catchable with gill nets. Also, intensive sampling may reveal other larger species which were not caught in our very limited sampling. Despite this, I am confident that there are no sport-table species in the dam other than black bream, spangled perch and eel-tailed catfish.

There are two other species, indigenous to the region, which could be added to the lake to increase the variety of sport fish available. These are the archer fish Toxotes chatareus (which is common in the lagoon beside the Kidston Road at the Einasleigh River crossing), and the sleepy cod Oxyeleotris lineolatus). Both species will breed in the dam. Neither are currently being held in hatcheries, so stock (adults and/or juveniles) would have to be obtained from nearby rivers.

Undoubtedly, many of your employees would be keen to have barramundi in the dam. However, barramundi of the same genetic stock as that in the southern Gulf of Carpentaria are not available from hatcheries at the moment. It is unwise to mix genetic stocks, as interbreeding may lower the fitness of indigenous stocks. This is the very reason, as you explained to me, for the Canadian policy with salmonids of stocking progeny only into the same stream that the parental fish came from. An analogous situation applies with barramundi. As barramundi could escape over the dam wall and then move downstream during high flows, stocking should not be considered until barramundi of the same genetic stock as that in the lower sections of the Copperfield River are available from hatcheries.

Please contact me if you require any further information.

Yours sincerely,

D. Man Lulyeve for

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