


Supplementary Information

A Protocol for Fish Lipid Analysis Using Nuclear Magnetic Resonance Spectroscopy

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Figure S1. Map showing the spots where fish capture occurred along the Amazon Region (Catalao lake): (1) S03°10.570' W059°55.000', (2) S03°10.736' W059°54.180', (3) S03°09.967' W059°54.534', (4) S03°09.746' W059°54.488', (5) S03°10.030' W059°55.579' and (6) S03°10.437' W059°54.277'.

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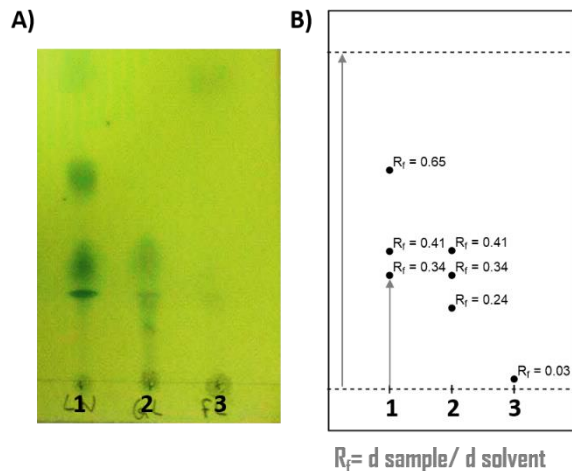


Figure S2. Photo of a thin layer chromatography (TLC) run showing the fish lipids after open column fractionation into classes of different polarities. Lipids were isolated from *C. monoculus* sample (flood period). Total lipids (LT), neutral lipids (LN), glycolipids (GL) and phospholipids (FL) were identified according to R_f .¹

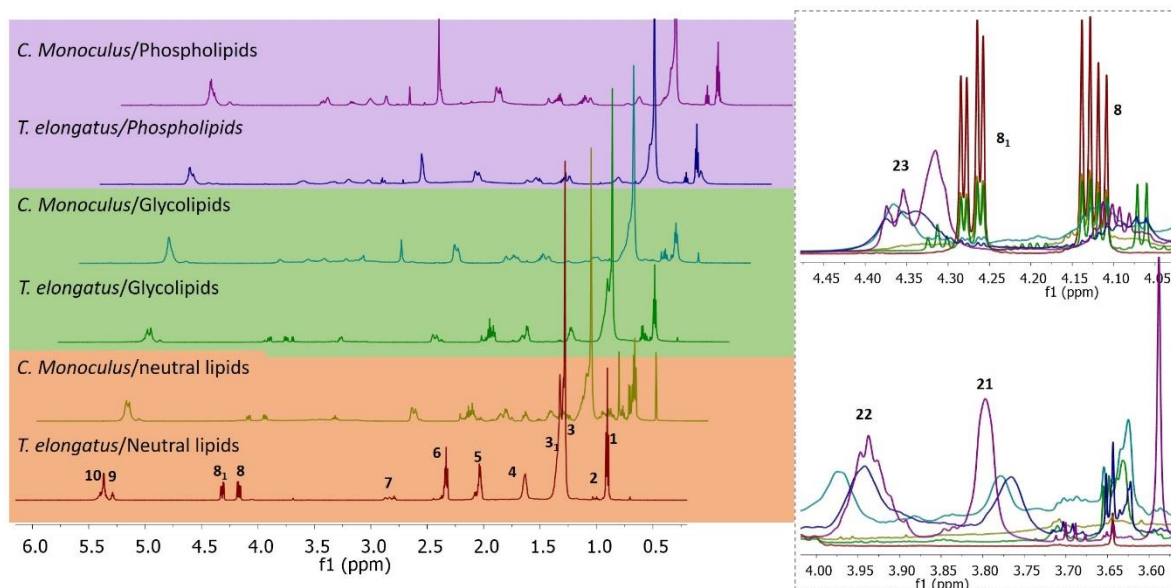


Figure S3. ^1H NMR spectra of fractions of lipids extracted from the liver of *C. monoculus* and *T. elongatus*. Assignments are shown according to ones given in Table 2. The most important peaks are amplified at the right. Chemical shifts: 5.38-5.30 (m, 2H) (10); 5.28 (s, 1H) (9₁); 5.24 (t, J 5.1 Hz, 1H) (9); 4.27 (dd, J 11.9, 4.3 Hz, 1H) (8₁); 4.12 (dd, J 12.0, 6.0 Hz, 1H) (8); 2.81 (dt, J 21.2, 5.5 Hz, 2H) (7); 2.29 (td, J 7.6, 3.5 Hz, 2H) (6); 2.02 (dq, J 32.1, 7.2, 6.6 Hz, 2H) (5); 1.62-1.55 (m, 2H) (4); 1.28 (d, J 9.5 Hz, 10H) (3₁); 1.23 (s, 12H) (3); 1.02-0.93 (m, 1H) (2); 0.92-0.79 (m, 4H) (1).

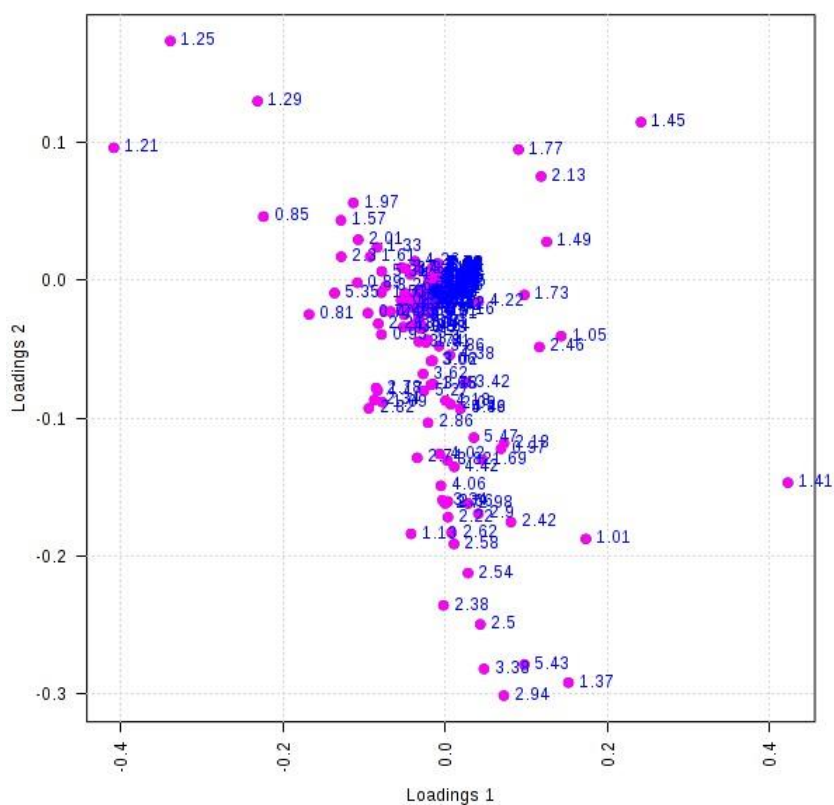


Figure S4. PLS-DA loading chart of the Amazonian fishes *C. monocolus* and *T. elongatus* from flood and drought periods.

Reference

1. Vidal, N. P.; Manzanos, M. J.; Goicoechea, E.; Guillén, M. D.; *Food Chem.* **2012**, *135*, 1583.

