

**Adalberto Luis Val (Brazil)**

**Peer-reviewed scientific journal publications (full list)**

**207 publications (April 14, 2021)**

**1981**

**Val, A.L.**, Schwantes, A.R., Schwantes, M.L., De Luca, P.H., 1981. Amido hidrolisado de milho com suporte eletroforético. *Ciencia e Cultura* 33, 992-996.

**1982**

Coppes, Z.L., Schwantes, M.L.B., Schwantes, A.R., De Luca, P.H., **Val, A.L.**, 1982. Adaptive features of ectothermic enzymes. III-Studies on phosphoglucose isomerase (PGI) from five species of tropical fishes of the superorder Ostariophysi. *Comparative Biochemistry and Physiology* 72B, 201-214.

**1984**

**Val, A.L.**, Almeida-Val, V.M.F., Schwantes, A.R., Schwantes, M.L.B., 1984. Biological aspects of amazonian fishes I. Red blood cell phosphates of schooling fishes (Genus *Semaprochilodus*: Prochilodontidae). *Comparative Biochemistry and Physiology* 78, 215-217.

**1985**

Almeida-Val, V.M.F., Schwantes, A.R., **Val, A.L.**, 1985. Electrophoretic patterns of hemoglobin and oxygen binding properties of blood of anostomidae fishes from parana-pardo-grande hydrographic basin (Sao Paulo State, Brasil). *The Journal of Experimental Zoology* 235, 21-26.

**Val, A.L.**, Schwantes, A.R., Almeida-Val, V.M.F., Schwantes, M.L.B., 1985. Hemoglobin, hematology, intraerythrocytic phosphates and whole blood Bohr effect from lotic and lentic *Hypostomus regani* (Sao Paulo-Brasil). *Comparative Biochemistry and Physiology* 80, 737-741.

**1986**

**Val, A.L.**, Schwantes, A.R., Almeida-Val, V.M.F., 1986. Biological aspects of Amazonian fishes. VI. Hemoglobins and whole blood properties of *Semaprochilodus* species (Prochilodontidae) at two phases of migration. *Comparative Biochemistry and Physiology* 83B, 659-667.

**1987**

Bartlett, G.R., Schwantes, A.R., **Val, A.L.**, 1987. Studies on the influence of nitrite on methemoglobin formation in amazonian fishes. *Comparative Biochemistry and Physiology* 86C, 449-456.

Monteiro, P.J.C., **Val, A.L.**, Almeida-Val, V.M.F., 1987. Biological aspects of amazonian fishes. Hemoglobin, hematology, intraerythrocytic phosphates and whole blood bohr effect of *Mylossoma duriventris*. Canadian Journal of Zoology 65, 1805-1811.

**Val, A.L.**, Almeida-Val, V.M.F., Monteiro, P.J., 1987. Aspectos biológicos de peixes amazônicos. IV. Padrões eletroforéticos de hemoglobinas de 22 espécies coletadas na ilha da Marchantaria (Manaus-AM). Acta Amazonica 16/17, 125-134.

## 1988

**Val, A.L.**, Almeida-Val, V.M.F., 1988. Adaptive features of amazon fishes. Hemoglobins of *Brycon cf cephalus* and *Brycon cf erythropterum* (Pisces). Revista Brasileira de Genetica 11, 27-39.

## 1990

Almeida-Val, V.M.F., Schwantes, M.L.B., **Val, A.L.**, 1990. LDH isozymes in amazon fish. I. Electrophoretic studies on two species from serrasalmidae family: *Mylossoma duriventris* and *Colossoma macropomum*. Comparative Biochemistry and Physiology 95A, 77-84.

Almeida-Val, V.M.F., **Val, A.L.**, 1990. Adaptação bioquímica em peixes da Amazônia. Ciência Hoje 11, 62-67.

Salvo-Souza, R.H., **Val, A.L.**, 1990. Pirarucu - o gigante das aguas amazônicas. Ciência Hoje 11, 9-12.

**Val, A.L.**, Almeida-Val, V.M.F., Affonso, E.G., 1990a. Adaptive features of Amazon fishes: Hemoglobins, hematology, intraerythrocytic phosphates and whole blood Bohr effect of *Pterygoplichthys multiradiatus* (Siluriformes). Comparative Biochemistry and Physiology 97, 435-440.

**Val, A.L.**, Almeida-Val, V.M.F., Affonso, E.G., Souza, R.H.S., 1990b. Erythrocytic phosphates and Hb-O<sub>2</sub> affinity of amazon fishes: adaptive features.

## 1991

Almeida-Val, V.M.F., Schwantes, M.L.B., **Val, A.L.**, 1991. LDH isozymes in Amazon fish - II. Temperature and pH effects on LDH kinetic properties from *Mylossoma duriventris* and *Colossoma macropomum* (Serrasalmidae). Comparative Biochemistry and Physiology 98B, 79-86.

## 1992

**Val, A.L.**, Affonso, E.G., Almeida-Val, V.M.F., 1992a. Adaptive features of Amazon fishes. Blood characteristics of curimata (*Prochilodus cf. nigricans*, Osteichthyes). Physiological Zoology 65, 832-843.

**Val, A.L.**, Affonso, E.G., Souza, R.H.S., Almeida-Val, V.M.F., Moura, M.A.F., 1992b. Inositol pentaphosphate in erythrocytes of an Amazonian fish, the pirarucu (*Arapaima gigas*). Canadian Journal of Zoology 70, 852-855.

### 1993

Almeida-Val, V.M.F., **Val, A.L.**, 1993. Evolutionary trends of LDH isozymes in fishes. Comparative Biochemistry and Physiology 105B, 21-28.

Brauner, C.J., **Val, A.L.**, Randall, D.J., 1993. The effect of graded methemoglobin levels on the swimming performance of chinook salmon (*Oncorhynchus tshawytscha*). The Journal of Experimental Biology 185, 121-137.

**Val, A.L.**, 1993. Carbon dioxide and acid transfer in teleost fish. Funktionsanalyse Biologischer System 23, 69-74.

### 1994

Moura, M.A.F., Farias, I.P., **Val, A.L.**, 1994. Effects of temperature on leucocytes of *Colossoma macropomum* and *Hoplosternum littorale*. Brazilian Journal of Medical and Biological Research 27, 1589-1598.

**Val, A.L.**, Mazur, C.F., Salvo-Souza, R.H., Iwama, G., 1994. Effects of experimental anaemia on intra-erythrocytic phosphate levels in rainbow trout, *Oncorhynchus mykiss*. Journal of Fish Biology 45, 269-279.

### 1995

Almeida-Val, V.M.F., Farias, I.P., Silva, M.N.P., Duncan, W.P., **Val, A.L.**, 1995. Biochemical adjustments to hypoxia by Amazon cichlids. Brazilian Journal of Medical and Biological Research 28, 1257-1263.

Brauner, C.J., Ballantyne, C.L., Randall, D.J., **Val, A.L.**, 1995. Air breathing in the armoured catfish (*Hoplosternum littorale*) as an adaptation to hypoxic, acid, and hydrogen sulphide rich waters. Canadian Journal of Zoology 73, 739-744.

Carciolo, M.C., **Val, A.L.**, Almeida-Val, V.M.F., 1995. Malate dehydrogenase polymorphism in Amazon curimatids (Teleostei: Curimatidae): Evidence of an ancient mutational event. Brazilian Journal of Genetics 19, 57-64.

Lessard, J., **Val, A.L.**, Aota, S., Randall, D.J., 1995. Why is there no carbonic anhydrase activity available to fish plasma? Journal of Experimental Biology 198, 31-38.

**Val, A.L.**, 1995. Oxygen transfer in fish: morphological and molecular adjustments. Brazilian Journal of Medical and Biological Research 28, 1119-1127.

**Val, A.L.**, Lessard, J., Randall, D., 1995. Effects of hypoxia on rainbow trout (*Oncorhynchus mykiss*): intraerythrocytic phosphates. *The Journal of Experimental Biology* 198, 305-310.

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Costa, O.T.F., Pedraça, E.B., **Val, A.L.**, 1996. Efeito do petróleo sobre o consumo de oxigênio tissular e níveis de eletrólitos plasmáticos de *Colossoma macropomum* (Characiformes, Serrasalminidae). *Revista da Universidade do Amazonas* 1, 85-95.

#### 1997

Costa, O.T.F., Bastos, M.S., **Val, A.L.**, 1997. Effects of nitrite and crude oil on blood parameters, acid-base status, and plasma ion levels of *Symphysodon aequifasciata* (Pisces). *Revista da Universidade do Amazonas* 1, 1-12.

**Val, A.L.**, 1997. Carbonic anhydrase: A multigene-multifunctional enzyme. *Anais da Academia Brasileira de Ciências* 69, 565-573.

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Gonzalez, R., Wood, C., Wilson, R., Patrick, M., Bergman, H., Narahara, A., Val, A., 1998. Effects of water pH and calcium concentration on ion balance in fish of the rio Negro, Amazon. *Physiological Zoology* 71, 15-22.

Moura, M.A.F., Oliveira, M.I., **Val, A.L.**, 1998. Effects of hypoxia on leucocytes of two amazon fish: *Colossoma macropomum* and *Hoplosternum littorale*. *Revista da Universidade do Amazonas* 1, 13-22.

Ramirez-Gil, H., Feldberg, E., Almeida-Val, V.M.F., **Val, A.L.**, 1998. Karyological, biochemical, and physiological aspects of *Callophysus macropterus* (Siluriformes, Pimelodidae) from rio Solimões and rio Negro (Central Amazon). *Brazilian Journal of Medical and Biological Research* 31, 1449-1458.

Santos, G.M., **Val, A.L.**, 1998. Ocorrência do peixe-serra (*Pristis perotteti*) no rio Amazonas e comentários sobre sua história natural. *Ciência Hoje* 23, 66-67.

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**Val, A.L.**, Silva, M.N.P., Almeida-Val, V.M.F., 1998b. Hypoxia adaptation in fish of the Amazon: a never-ending task. *South African Journal of Zoology* 33, 107-114.

Wood, C.M., Wilson, R.W., Gonzalez, R.J., Patrick, M.L., Bergman, H.L., Narahara, A., **Val, A.L.**, 1998. Responses of an Amazonian teleost, the tambaqui (*Colossoma macropomum*) to low pH in extremely soft water. *Physiological Zoology* 71, 658-670. <https://doi.org/10.1086/515977>

## 1999

Bailey, J.R., **Val, A.L.**, Almeida-Val, V.M.F., Driedzic, W.R., 1999. Anoxic cardiac performance in Amazonian and north-temperate-zone teleosts. *Canadian Journal of Zoology* 77, 683-689.

Brauner, C.J., Ballantyne, C.L., Vijayan, M.M., **Val, A.L.**, 1999. Crude oil affects air-breathing frequency, blood phosphate levels and ion regulation in an air-breathing teleost fish, *Hoplosternum littorale*. *Comparative Biochemistry and Physiology* 123C, 127-134.

West, J.L., Bailey, J.R., Almeida-Val, V.M.F., **Val, A.L.**, Sidell, B.D., Driedzic, W.R., 1999. Activity levels of enzymes of energy metabolism in heart and red muscle are higher in north-temperate-zone than in Amazonian teleosts. *Canadian Journal of Zoology* 77, 690-696.

Wilson, R.W., Wood, C.M., Gonzalez, R.J., Patrick, M.L., Bergman, H.L., Narahara, A., **Val, A.L.**, 1999. Ion and acid-base balance in three species of Amazonian fish during gradual acidification of extremely soft water. *Physiological and Biochemical Zoology* 72, 277-285.

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Almeida-Val, V.M.F., **Val, A.L.**, Duncan, W.P., Souza, F.C.A., Paula-Silva, M.N., Land, S., 2000. Scaling effects on hypoxia tolerance in the Amazon fish *Astronotus ocellatus* (Perciformes, Cichlidae): contribution of tissue enzyme levels. *Comparative Biochemistry and Physiology* 125B, 219-226.

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Weber, R., Fago, A., **Val, A.L.**, Bang, A., Van Hauwaeert, M.L., De Wilde, S., Zal, F., Moens, L., 2000. Isohemoglobin differentiation in the biomodal-breathing Amazon catfish *Hoplosternum littorale*. *The Journal of Biological Chemistry* 275, 17297-17305.

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Brauner, C.J., Wang, T., **Val, A.L.**, Jensen, F.B., 2001. Non-linear release of Bohr protons with hemoglobin-oxygenation in the blood of two teleost fishes: carp (*Cyprinus carpio*) and tambaqui (*Colossoma macropomum*). *Fish Physiology and Biochemistry* 24, 97-104.

Roubach, R., Gomes, L.C., **Val, A.L.**, 2001. Safest level of tricaine methanesulfonate (MS-222) to induce anesthesia in juveniles of matrinxã, *Brycon cephalus*. *Acta Amazonica* 31, 159-163.

## 2002

Baldisseroto, B., **Val, A.L.**, 2002. Ion fluxes of *Metynnis hypsauchen*, a teleost from Rio Negro, Amazon, exposed to an increase of temperature. *Revista Brasileira de Biologia* 62, 749-752.

Gonzalez, R.J., Wilson, R.W., Wood, C.M., Patrick, M.L., **Val, A.L.**, 2002. Diverse strategies for ion regulation in fish collected from the ion-poor, acidic Rio Negro. *Physiological and Biochemical Zoology* 75, 37-47.

Matsuo, A.Y.O., **Val, A.L.**, 2002. Low pH and calcium effects on net Na<sup>+</sup> and K<sup>+</sup> fluxes in two catfishes species from the Amazon River (*Corydoras*: Callichthyidae). *Brazilian Journal of Medical and Biological Research* 35, 361-367.

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Patrick, M.L., Gonzalez, R.J., Wood, C.M., Wilson, R.W., Bradley, T.J., **Val, A.L.**, 2002b. The Characterization of Ion Regulation in Amazonian Mosquito Larvae: Evidence of Phenotypic Plasticity, Population-Based Disparity, and Novel Mechanisms of Ion Uptake. *Physiological and Biochemical Zoology* 75, 223-236.

Wood, C.M., Matsuo, A.Y.O., Gonzalez, R.J., Wilson, R.W., Patrick, M.L., **Val, A.L.**, 2002. Mechanisms of ion transport in *Potamotrygon*, a stenohaline freshwater elasmobranch native to the ion-poor blackwaters of the Rio Negro. *The Journal Experimental Biology* 205, 3039-3054.

## 2003

Chagas, E.C., **Val, A.L.**, 2003. Efeito da vitamina C no ganho de peso e em parâmetros hematológicos de tambaqui. *Pesquisa Agropecuária Brasileira* 38, 397-402.

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Mac Cormack, T.J., Treberg, J.R., Almeida-Val, V.M.F., **Val, A.L.**, Driedzic, W.R., 2003. Mitochondrial K-ATP channels and sarcoplasmic reticulum influence cardiac force development under anoxia in the Amazonian armoured catfish *Liposarc pardalis*. *Comparative Biochemistry and Physiology* 134A, 441-448.

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Wood, C.M., Matsuo, A.Y., Wilson, R.W., Gonzalez, R.J., Patrick, M.L., Playle, R.C., **Val, A.L.**, 2003. Protection by natural blackwater against disturbances in ion fluxes caused by low pH

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