Table S1. Definitions of input variable states for the Freshwater Fish Injurious Risk Assessment Model (FISRAM; Marcot et al. 2019). Definitions of input variables themselves are provided in Table 1. Further examples and references are available in the supplementary material for Marcot et al. (2019)

Variable	State	Definition
Habitat Disturbance	*None*	No species' habitat negatively affected; introduction of this species in no way modifies the habitat of any potentially affected species
	Insignificant	One or more species' habitat(s) negatively affected but in a minor way; for example, the effect is present only during a non-critical period or the effect is such a low level that it does not alter the behavior and health or abundance of potentially affected species.
	Significant	One or more species' habitat(s) negatively and substantially affected such that it alters the behavior and health or abundance of potentially affected species.
Predation	*None*	No species' population negatively affected; this introduced species does not prey on any potentially affected species.
	Insignificant	One or more species' population(s) negatively affected but in a minor way; for example, the effect is such a low level that it does not alter the behavior and health or abundance of potentially affected species.
	Significant	One or more native species' populations negatively and substantially affected such that it alters the behavior and health or abundance of potentially affected species.
Competition	*None*	No species' population negatively affected; this introduced species does not compete with any of the potentially affected species.
	Insignificant	One or more species' population negatively affected but in a minor way; for example, the effect is present only during a non-critical period or the effect is such a low level that it does not alter the behavior and health or abundance of potentially affected species.
	Significant	One or more species' populations negatively and substantially affected such that it alters the behavior and health or abundance of potentially affected species.
Genetics	*None*	No species' population genetics negatively affected; this introduced species does not influence the genetics of any potentially affected species. No native or State-managed congeners in the U.S.
	Insignificant	One or more species' population genetics negatively affected but in a minor way; for example, the effect is present only during a non-critical period or the effect is such a low level it does not alter the behavior and health or abundance of potentially affected species.
	Significant	One or more species' populations negatively and substantially affected such that it alters the behavior and health or abundance of potentially affected species.
Pathogens	*None*	No species' population negatively affected; this species is not involved in the spread (direct or indirect) of any pathogen or parasite.
	Insignificant	One or more native species' population negatively affected but in a minor way such that the effect is at a low level and does not alter the behavior and health or abundance of potentially affected species. Some signs or symptoms develop as a result of exposure, but minimally bothersome and generally resolved rapidly with no residual disability or disfigurement; or signs or symptoms more pronounced, more prolonged, or more systemic than minor symptoms, with some form of mild treatment usually indicated; symptoms not life-threatening; no residual disability or disfigurement.
	Significant	One or more native species' populations negatively and substantially affected such that it alters the behavior and health or abundance of potentially affected species. Signs or symptoms are life-threatening or result in significant residual disability or disfigurement; or death resulting from exposure or from direct complication of the exposure. May or does affect more than isolated cases.
Bites & Toxins	*None*	No signs or symptoms as a result of exposure
	Insignificant	Some signs or symptoms develop as a result of exposure, but minimally bothersome and generally resolved rapidly with no residual disability or disfigurement. Or signs or symptoms more pronounced, more prolonged, or more systemic than minor symptoms, with some form of treatment usually indicated; symptoms not life-threatening; no residual disability or disfigurement. May or does affect less than the population but more than isolated cases.
	Significant	Signs or symptoms life-threatening or resulting in significant residual disability or disfigurement; or death resulting from exposure or from direct complication of the exposure. May or does affect more than isolated cases.

Variable	State	Definition
Other Trait	*None*	No impact on human health. No scientific information or scientific judgment describing other traits that should be included in assessment of invasiveness.
	Insignificant	Minor impact on human health. Some signs or symptoms develop as a result of exposure, but minimally bothersome and generally resolved rapidly with no residual disability or disfigurement. Or signs or symptoms more pronounced, more prolonged, or more systemic than minor symptoms, with some form of treatment usually indicated; symptoms not life-threatening; no residual disability or disfigurement. May or does affect less than the population but more than isolated cases.
	Significant	Major impact on human health. Signs or symptoms are life-threatening or result in significant residual disability or disfigurement; or death resulting from exposure or from direct complication of the exposure. May or does affect more than isolated cases.
Human Transport	*None*	Not transported or transportable by humans
	Seldom	Rarely transported by humans
	Frequent	Easily transportable by humans; or has been transported by humans to new range
Non-Human Transport	*None*	Not able to disperse without human assistance
	Seldom	Rarely able to disperse or cannot disperse outside of a contained area without human transport assistance
	Frequent	Likely to disperse without human assistance; or it has dispersed without human assistance to new range. Includes having the ability to bypass barriers (such as jumping over barriers or digging through them).
Habitat Suitability	*None*	No suitable habitat for establishment or spread in the potential establishment or spread region
	Seldom	Habitat in the potential establishment or spread region is of the type that the species uses in mostly equal proportion to availability. Self-sustaining populations projected to establish in subject habitats, but biomass not projected to exceed that of any native, State-managed, or federal trust species.
	Frequent	Habitat in the potential establishment or spread region is of the type that the species uses in greater proportion than availability. Self-sustaining populations projected to establish in subject habitats, and biomass projected to exceed that of one or more native, State-managed, federal trust species.
Climate 6 Score	*Low*	$0.000 \leq X \leq 0.005$
	Medium	$0.005 < X < 0.103$
	High	$0.103 \leq X \leq 1.000$

Table S2. Predicted probability distributions supplied by assessors for input into the Freshwater Fish Injuriousness Risk Assessment Model (FISRAM) for assessment of arapaima (*Arapaima* spp.) injuriousness. The names of the variable states are listed in italics under each variable in the "Variable" column. Assessors were asked to distribute probability among the three states of each variable; their predicted probabilities for each state are listed in the same order as the variable state names.

Variable	Assessor 1	Assessor 2	Assessor 3	Assessor 4	Assessor 5	Assessor 6
Habitat Disturbance (*None, Insignificant, Significant*)	(0, 0.33, 0.67)	(1, 0, 0)	(1, 0, 0)	(1, 0, 0)	(0.8, 0.2, 0)	(1, 0, 0)
Predation (*None, Insignificant, Significant*)	(0, 0, 1)	(0, 0.25, 0.75)	(0, 0, 1)	(0, 0.2, 0.8)	(0, 0, 1)	(0, 1, 0)
Competition (*None, Insignificant, Significant*)	(0, 0, 1)	(0, 0.25, 0.75)	(0, 0, 1)	(0, 0.2, 0.8)	(0, 0.5, 0.5)	(0, 1, 0)
Bites & Toxins (*None, Insignificant, Significant*)	(1, 0, 0)	(1, 0, 0)	(1, 0, 0)	(1, 0, 0)	(1, 0, 0)	(1, 0, 0)
Genetics (*None, Insignificant, Significant*)	(1, 0, 0)	(0.9, 0.1, 0)	(1, 0, 0)	(1, 0, 0)	(1, 0, 0)	(1, 0, 0)
Pathogens (*None, Insignificant, Significant*)	(0.33, 0.33, 0.34)	(0.8, 0.1, 0.1)	(1, 0, 0)	(0.2, 0.6, 0.2)	(0.3, 0.5, 0.2)	(0, 1, 0)
Other Traits (*None, Insignificant, Significant*)	(1, 0, 0)	(1, 0, 0)	(0, 0, 1)	(1, 0, 0)	(1, 0, 0)	(1, 0, 0)
Human Transport (*None, Seldom, Frequent*)	(0, 0.5, 0.5)	(0, 0.25, 0.75)	(0, 0, 1)	(0, 0.3, 0.7)	(0, 0.5, 0.5)	(0, 1, 0)
Non-Human Dispersal (*None, Seldom, Frequent*)	(0, 0, 1)	(0.33, 0.33, 0.34)	(0, 0, 1)	(0.33, 0.33, 0.34)	(0, 0.5, 0.5)	(1, 0, 0)
Habitat Suitability (*None, Insignificant, Significant*)	(0, 0.5, 0.5)	(0, 0.25, 0.75)	(0, 0, 1)	(0.1, 0.5, 0.4)	(0.3, 0.5, 0.2)	(0, 1, 0)