

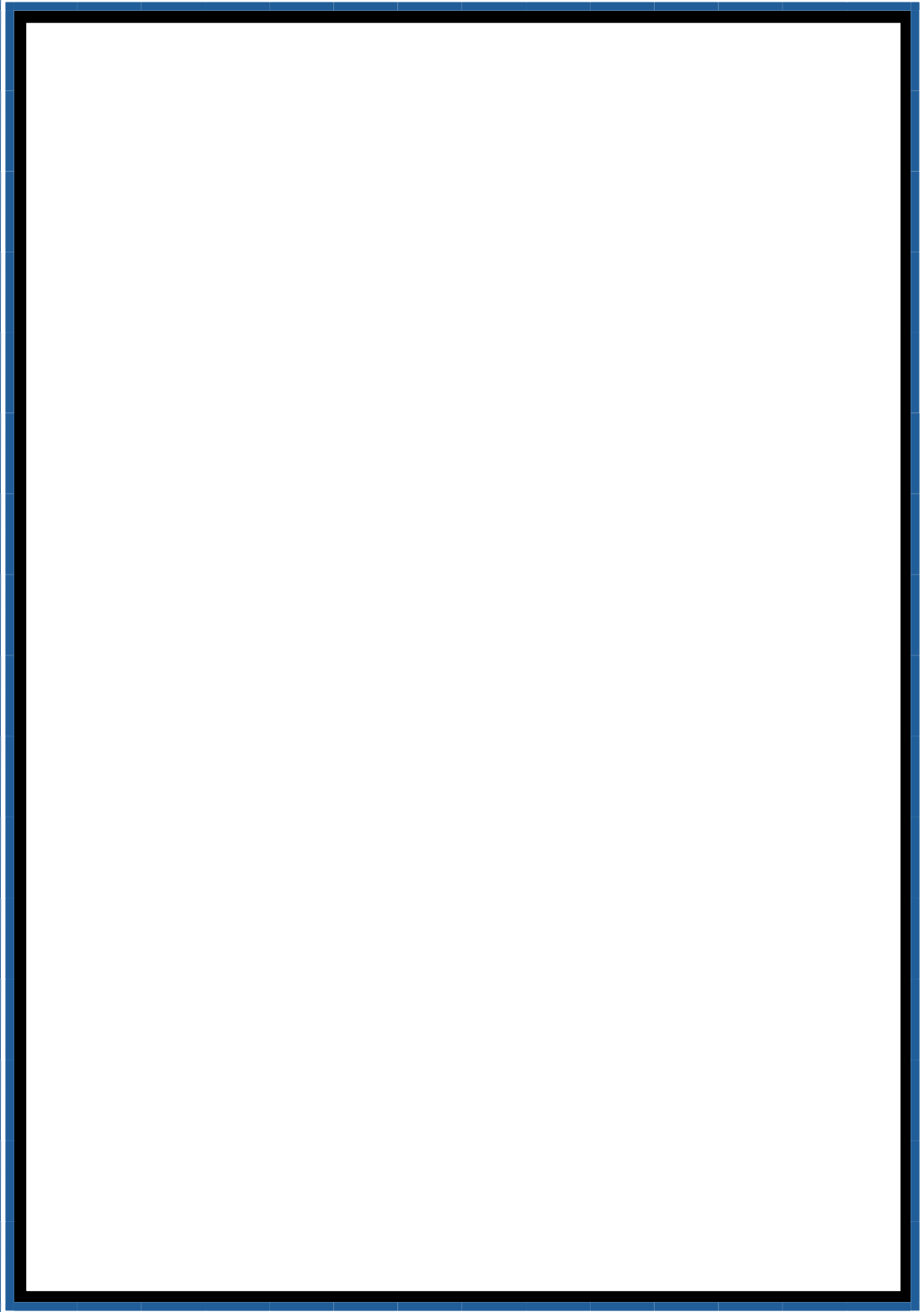
2011

FRENCH GUYANA / BRAZIL EXPEDITION



FGLSM 2011 | BRLSM 2011

Jacques **Laird**
Luis **Santos**
Mário **Melo**



French Guiana



Overseas territorial collectivity of France, situated on the northeastern coast of South America. French Guiana is bounded by Brazil to the south and east, Suriname to the west, and the Atlantic Ocean to the northeast. The capital is Cayenne.

Land

Geologically, the rock underlying French Guiana forms part of the crystalline massif of the Guiana Highlands. Rivers—which flow generally northeastward, to the sea—have greatly eroded the massif, and most of French Guiana is low-lying. The Maroni River forms the French Guiana–Suriname border in the west, and the Oyapock River forms the border with Brazil in the east. The Tumuc-Humac Mountains in the south reach an elevation of 2,300 feet (700 metres). Recent alluvial deposits have formed a swampy coastal plain southeast of Cayenne. Older alluvial deposits form a savanna west of Cayenne. Dense tropical forests (mostly hardwoods) predominate outside the coastal plain and cover more than nine-tenths of the land area.

French Guiana is subject to heavy rainfall between December and July; annual precipitation reaches 150 inches (3,800 mm) around Cayenne and tapers off toward the northeast. High temperatures predominate, and monthly averages vary between 77 and 80 °F (25 and 27 °C) at Cayenne. Wildlife includes tapirs, caimans, ocelots, sloths, great anteaters, and armadillos.

People

French Guiana's population is principally Creole (mixed descent, also referred to as Guianese Mulatto), with minorities of metropolitan French, Haitians, Surinamese, Antilleans, Chinese, Brazilians, South Asians, and others. The principal languages spoken are French (official); Guianese Creole French; several indigenous languages, including Wayampi, Carib, and Emerillon; and the various languages of the immigrant communities.

The principal religious affiliation is Christianity (primarily Roman Catholicism), adhered to by more than four-fifths of the population.

Economy

French Guiana has a developing market economy, patterned on that of metropolitan France and sustained by aid and technical assistance from France. A rocket-launching base at Kourou, used by the European Space Agency, is of great importance to the economy, accounting for about one-fourth of the country's annual gross domestic product (GDP). Services, manufacturing, and construction are the largest sectors of the economy. The gross national income (GNI) per capita is among the highest in South America.

Government and society

French Guiana is governed by the provisions of the French constitution as a territorial collectivity of France and, as such, forms an integral part of the French Republic. It sends two elected representatives to the National Assembly and two to the Senate. Local government is headed by a prefect and by a 51-member Assembly whose members are elected by universal adult suffrage. There is a local court of appeal. The principal political parties are the Guianese Socialist Party and the Union for a Popular Movement. Other political parties include the Movement for Decolonization and Social Emancipation, the Guiana Democratic Forces, and Walwari, a leftist party whose founder Christiane Taubira served as minister of justice in the administration of French President François Hollande.

Cultural life

French Guiana's cultural milieu reflects the diverse background of the resident ethnic communities. Indigenous and African crafts, customs, and arts predominate among their respective peoples. A distinctive mixed-Creole culture is dominant in the urban areas, highlighted by brilliantly coloured and distinctively patterned costumes; dances reflecting African, East Indian, and French 18th-century influence; and festivals, especially the pre-Lenten Carnival, when much of the population devotes itself to costume design, musical composition, and dance competitions. Léon Damas, a French Guianese poet, was a leader of the Negritude movement in Caribbean literature beginning in the 1930s.

History

Spaniards explored the Guiana coast in 1500 and settled the area around Cayenne in 1503. French merchants from Rouen opened a trading centre in the coastal village of Sinnamary in 1624, followed by others from Rouen or Paris who founded Cayenne in 1643. The Treaty of Breda awarded the territory to France in 1667, and the Dutch, who had occupied Cayenne in 1664, were expelled in 1676. Inhabitants of the territory were made French citizens, with representation in the French Parliament after 1877.

However, by 1852 the French had begun using the territory as a penal colony where deported convicts were imprisoned in dreadful conditions exemplified by the notorious Devils Island just off the coast. More than 70,000 French convicts were deported to French Guiana between 1852 and 1939; the penal colony on Devils Island was abolished only after a startling exposé by the French investigative journalist Albert Londres in the 1920s. Another aspect of French Guiana, however, was the pioneering community at Mana (1827–46) founded by Anne-Marie Javouhey, mother superior of the community of St. Joseph of Cluny.

Locations Map

During this expedition the team had the opportunity to visit 2 countries and collect some local species.

French Guyana



Brazil



Map of the Main Rivers in French Guiana

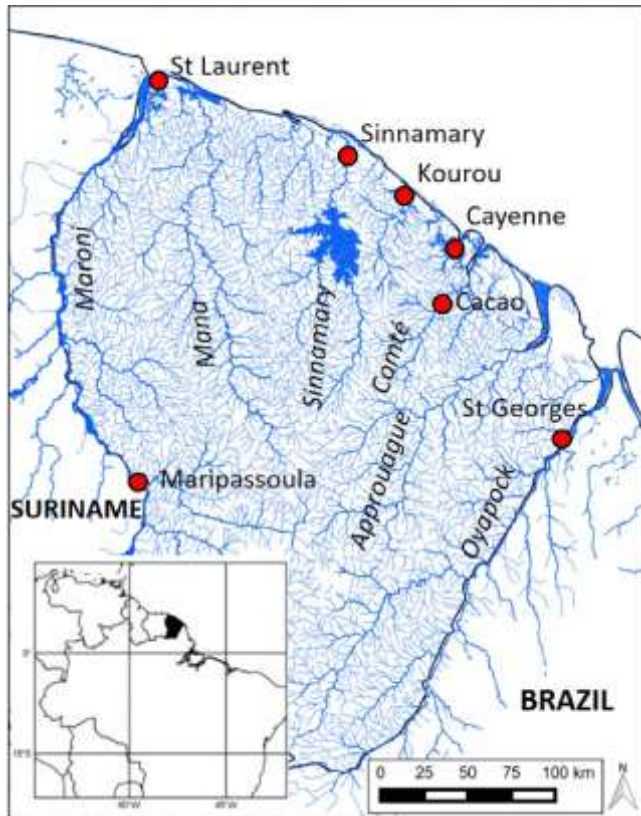
Map of French Guiana showing the main rivers and places mentioned in the list of estuarine and freshwater fish.



Source :

Updated checklist of the freshwater and estuarine fishes of French Guiana
March 2012
Cybium: International Journal of Ichthyology 36(1):293-319

Map of French Guiana indicating the main river basins and human settlements



Source :

Aquarium trade and fish farms as a source of non-native freshwater fish introductions in French Guiana

February 2021 Annales de Limnologie - International Journal of Limnology 57

French Guyana
Capture References

Jacques Laird previous expeditions (2007)

Family	Species	Ref / Country		Location	Coordinates
Rivulus	agilae	FG - LL07/01	FG	GRAND MATOURY	N 4°50.200 / W 52°16.419 RN2, virage PK 3,4 après MATOURY direction REGINA
Rivulus	xiphidius	FG - LL07/01	FG	GRAND MATOURY	N 4°50.200 / W 52°16.419 RN2, virage PK 3,4 après MATOURY direction REGINA
Rivulus	uropthalmus	FG - LL07/02	FG	PARIACABO	N 5°05.834 / W 52°40.115 D16, zone commerciale KOUROU, face au LIDL
Rivulus	agilae	FG- FSL07/03	FG	FOURGASSIER	N 4°34.011 / W 52°18.441 D6, direction de KAW – piste au PK 14
Rivulus	cladophorus	FG- FSL07/03	FG	FOURGASSIER	N 4°34.011 / W 52°18.442 D6, direction de KAW – piste au PK 14
Rivulus	igneus	FG- FSL07/03	FG	FOURGASSIER	N 4°34.011 / W 52°18.443 D6, direction de KAW – piste au PK 14
Rivulus	xiphidius	FG- FSL07/03	FG	FOURGASSIER	N 4°34.011 / W 52°18.444 D6, direction de KAW – piste au PK 14
Rivulus	geayi	FG - LL07/04	FG	BOULANGER	N 5°05.834 / W 52°40.116 Route de CACAO, PK 5 après intersection avec RN2
Rivulus	geayi	FG - LL07/05	FG	SAUT CIZAME	N 4°08.289 / W 52°22.387 Approuague, amont de REGINA avant Saut Grand Mathias
Rivulus	xiphidius	FG - LL07/05	FG	SAUT CIZAME	N 4°08.289 / W 52°22.388 Approuague, amont de REGINA avant Saut Grand Mathias
Rivulus	geayi	B- LP07/06	Brazil	UNIVERSIDAD OYAPOQUE	N 3°46.882 / W 51°49.860 5 Km après Oiapoque direction Brésil , quartier Universidad
Rivulus	agilae	FG - LL07/07	FG	CHUTES VOLTAIRES	N 3°46.880 / W 54°49.088 73 Km après St laurent, piste Isnard – sentier pedestre PK 3,5

Family	Species	Ref / Country		Location	Coordinates
Rivulus	igneus	FG - LL07/07	FG	CHUTES VOLTAIRES	N 3°46.880 / W 54°49.089 73 Km après St laurent, piste Isnard – sentier pedestre PK 3,5
Rivulus	agilae	S - LL07/08	SUR	MOENGO-TAPOE	N 5°31.199 / W 54°14.513 Route de PARAMARIBO, village au PK 43,5
Rivulus	cladophorus	FG - LL07/09	FG	MONTAGNE DES SINGES	N 5°00.680 / W 52°41.585 Route de petit saut, PK 8
Rivulus	xiphidius	FG - LL07/09	FG	MONTAGNE DES SINGES	N 5°00.680 / W 52°41.586 Route de petit saut, PK 8

Collecting trip 2019 - Merck Vanneck Van Donnicks Deroeck

Country, Date	K-D Valid Name Collected Sp.	Location, Measurements	Geographical Coordinates
Guyane 28/11/2019	Rivulus (Laimosemion) agillae, Other	trib. La Carapa pH=< 6, KH=6, GH=>20, NO2=0, NO3=0, TP(water)=26°C, TP(air)=32°C	N 04°55'03.7" W 052°27'32.3"
Guyane 28/11/2019	Rivulus (Laimosemion) agillae	Av. de La Laitière pH=6.5, KH=0, GH=<6, NO2=0, NO3=0, TP(water)=26°C, TP(air)=32°C	N 04°55'41.2" W 052°27'09.9"
Guyane 28/11/2019	Rivulus (Laimosemion) agillae, Rivulus igneus	Av. de La Laitière pH=6.4, KH=0, GH=6, NO2=0, NO3=0, TP(water)=26°C, TP(air)=32°C	N 04°56'08.6" W 052°26'43.6"
Guyane 30/11/2019	Rivulus (Laimosemion) agillae, Rivulus (Laimosemion) xiphidius	back to Maripa Falls 170m pH=< 6, KH=0, GH=< 6, NO2=0, NO3=0, TP(water)=25°C, TP(air)=33°C	N 03°48'44.7" W 051°52'55.7"
Guyane 30/11/2019	Rivulus (Laimosemion) geayi	back to Maripa Falls 257m pH=< 6, KH=0, GH=< 6, NO2=0, NO3=0, TP(water)=26°C, TP(air)=32°C	N 03°48'47.4" W 051°52'27.7"
Guyane 30/11/2019	Rivulus (Laimosemion) geayi, Rivulus (Laimosemion) xiphidius	back to Maripa Falls 1477m pH=< 6, KH=0, GH=< 6, NO2=0, NO3=0, TP(water)=26°C, TP(air)=32°C	N 03°49'14.2" W 051°52'46.6"
Guyane 30/11/2019	Rivulus (Laimosemion) xiphidius, Rivulus igneus	N2 PK 89+250 pH=< 6, KH=0, GH=< 6, NO2=0, NO3=0, TP(water)=25°C, TP(air)=33°C	N 03°49'14.2" W 052°19'12.9"
Guyane 01/12/2019	Rivulus (Laimosemion) agillae, Rivulus igneus	N2 PK 77+300 pH=< 6, KH=0, GH=< 6, NO2=0, NO3=0, TP(water)=26°C, TP(air)=33°C	N 04°20'53.9" W 052°15'24.2"
Guyane 02/12/2019	Rivulus (Laimosemion) agillae	path towards to Camp Cacao L. pH=< 6, KH=0, GH=< 6, NO2=0, NO3=0, TP(water)=28°C, TP(air)=33°C	N 04°30'36.4" W 052°30'30.7"

Country, Date	K-D Valid Name Collected Sp.	Location, Measurements	Geographical Coordinates
Guyane 04/12/2019	Rivulus (Laimosemion) xiphidius, Rivulus (Laimosemion) agilaе	Route de Nancibo PK 7 pH=< 6, KH=0, GH=< 6, NO2=0, NO3=0, TP(water)=25°C, TP(air)=32°C	N 04°40'56.3" W 052°25'08.6"
Guyane 04/12/2019	Rivulus (Laimosemion) agilaе, Rivulus (Laimosemion) xiphidius	Route de Nancibo PK 9+300 pH=< 6, KH=0, GH=< 6, NO2=0, NO3=0, TP(water)=25°C, TP(air)=33°C	N 04°40'15.7" W 052°25'53.6"
Guyane 05/12/2019	Rivulus (Laimosemion) agilaе, Rivulus (Laimosemion) xiphidius	Wayana-Fourgassie pH=< 6, KH=0, GH=< 6, NO2=0, NO3=0, TP(water)=25°C, TP(air)=33°C	N 04°39'11.6" W 052°25'53.6"
Guyane 08/12/2019	Rivulus (Laimosemion) agilaе, Rivulus (Laimosemion) geayi, Rivulus (Laimosemion) xiphidius	D20 links Crique Tapiaré pH=< 6, KH=0, GH=< 6, NO2=0, NO3=0, TP(water)=26°C, TP(air)=32°C	N 04°18'56.5" W 052°09'14.0"
Guyane 08/12/2019	Rivulus (Laimosemion) xiphidius, Rivulus (Laimosemion) geayi, Rivulus igneus	Crique Jean Pierre PK 98+720 pH=< 6, KH=0, GH=< 6, NO2=0, NO3=0, TP(water)=26°C, TP(air)=33°C	N 04°17'27.1" W 052°12'33.1"
Guyane 08/12/2019	Rivulus (Laimosemion) xiphidius	N2 PK 89+250 pH=< 6, KH=0, GH=< 6, NO2=0, NO3=0, TP(water)=25°C, TP(air)=33°C	N 03°49'14.2" W 052°19'12.9"
Guyane 10/12/2019	Rivulus (Laimosemion) xiphidius	Route de Belizon pH=< 6, KH=0, GH=< 6, NO2=0, NO3=0, TP(water)=25°C, TP(air)=33°C	N 04°18'32.1" W 052°23'45.1"
Guyane 10/12/2019	Rivulus (Laimosemion) xiphidius	N2 PK 77+051 pH=< 6, KH=0, GH=< 6, NO2=0, NO3=0, TP(water)=26°C, TP(air)=33°C	N 04°25'09.3" W 052°19'15.7"
Guyane 12/12/2019	Rivulus (Laimosemion) xiphidius	path thru Crique Marguerite pH=< 6, KH=0, GH=< 6, NO2=0, NO3=0, TP(water)=25°C, TP(air)=33°C	N 04°37'48.1" W 052°21'30.1"
Guyane 12/12/2019	Rivulus (Laimosemion) xiphidius, Rivulus (Laimosemion) agilaе	Crique Cacao pH=< 6, KH=0, GH=< 6, NO2=0, NO3=0, TP(water)=25°C, TP(air)=33°C	N 04°34'15.9" W 052°27'59.4"

French Guyana internet killifish information

Updated checklist of the freshwater and estuarine fishes of French Guiana by Pierre-Yves Le Bail* (1), Raphaël Covain (2, 3, 4), Michel Jégu (5, 6), Sonia Fisch-Muller (2), Régis Vigouroux (7) & Philippe Keith (6)

Taxa	River catchments and localities									Costline
	Maroni	Mana	Iracoubo	Sinnamary	Kourou	Comité	Orapu	Approuague	Oyapock	
<i>Kryptolebias marmoratus</i> (Poej, 1893)	+				+					+
<i>Kryptolebias sepi</i> Vermeulen & Hrbek, 2005**	T									
<i>Rivulus aglae</i> Hoedeman, 1954	+	+	+	+	+	+			+	
<i>Rivulus cladophorus</i> Huber, 1901				T	+	+				
<i>Rivulus gauchet</i> Kettin, Nandrin & Le Bail, 2006**	T									
<i>Rivulus georgi</i> Vaillant, 1899	+						+			+
<i>Rivulus holmiae</i> Eigenmann, 1909	+						+	+		+
<i>Rivulus igneus</i> Huber, 1993	+	+	+	+	T					
<i>Rivulus lungi</i> Berkenkamp, 1984	+	+	+	+	+		T	+		+
<i>Rivulus siphidius</i> Huber, 1979	+		+	+	+	+	+	+		T

Table 1. - Updated checklist of fish species found in estuaries and fresh water in French Guiana, arranged by main river basin. An asterisk (*) indicates a change of name since the "Atlas des poissons d'eau douce de Guyane", a double asterisk (**) indicates a new record since the same work, and a triple asterisk (***) indicates non native species. (+) indicates the presence of the species in the corresponding catchment. (locality name) indicates that the species was not found in the main watercourse but in adjacent rivers or aquatic zones, whose names are given in brackets. (T) indicates that the type specimen was captured in the corresponding catchment.

Link :https://www.researchgate.net/publication/236593791_Updated_checklist_of_the_freshwater_and_estuarine_fishes_of_French_Guiana

Expedition recommendations

By Frans Vermeulen

- Never look for Rivulus in creeks, rivers and wide or open swamps. They appear seldom in such waters.
- Always seek at the edges of small creeks, mostly swampy parts filled with leaves and mostly in the darkness of the forest, as they are the hiding places Rivulus lives. Even small puddles and areas not deeper than 2 cm are the only places that Rivulus is living. So do not spoil your time in waters that are wide and open. If you see a small creek the road the road crossedgo in the nearby forest and look for wet places and “trickling” tributary waters that feed the creek.
- Travel light, with small fishnets (but shaped deep) and a robust plastic bag for collecting....separate all adult **males** just after collecting **at the spot** before proceed traveling and pack them in small breathable bags one by one....only females can stored together but better you store some of them separate also. Males mostly start to fight when crowded, even during the trip. Especially when water is renewed.
- Replace 100 % of the water after one day in all bags with rainwater or with water from a similar creek. After that, the fishes will live up to 2 weeks in the bags without any problem. Do not feed the fishes.
- Keep data of all collection sites, GPS coordinates, temperature, date, time of day and values like DH and pH.
- Number every site you collect with a unique number that is written on the bags (or inside by the use of styropor stickers) that correspond with your written data in your journal.
- Do not rely on the idea that you will get thru customs with your fish....even when you have the proper export papers. If you collect a new species, put some of them in 70 % alcohol or 4% formalin and send them to your home address by post.

Rivulidae species already identified in French Guyana

	<u>Rivulidae</u>	<u>Anablepsoides gaucheri</u>
	<u>Rivulidae</u>	<u>Anablepsoides igneus</u>
	<u>Rivulidae</u>	<u>Anablepsoides lungi</u>
	<u>Rivulidae</u>	<u>Kryptolebias marmoratus</u>



Rivulidae

Kryptolebias ocellatus



Rivulidae

Laimosemion agilae



Rivulidae

Laimosemion cladophorus



Rivulidae

Laimosemion xiphidius



Rivulidae

Laimosemion geayi

Collecting locations report

FGLSM 2011: COLLECTING POINT n° 1	Name: FGLSM 2011/01 Choses Dernieres	
Day/ Date/ Hour: DIM 10/7/11 - 10H00	Route/ Km: Route de CACAO- 7 KM avant CACAO	River: Crique BOULANGER
GPS LOCATION:	N 4° 37'.785 / W 52° 24. 017 ALT: 32 M	
Position/ Pts marquants:	Virage à ancien emplacement du châwater des choses dernières	
Ph: 4,8	Killis présents: GEAYI et IGNEUS au PK 54,3 de la RN2 à 200 mètres en remontant sur CACAO côté REGINA	
Conductivity: 13		
T° water: 25 T° air: 29,1	Autres animals/ vegetation: copella/ cyclidés...au PK 54,3	
Photos/ N°: - JL 270 à 279		
Comments/Miscellaneous: - H2O du cours principal est supérieur à celui du ruisswater. - Collecte initiale en deux points: PK 54,3 RN2 et route de CACAO (même crique). - Point de collecte identique à FGLL07/04		

FGLSM 2011: COLLECTING POINT n°2	Name: FGLSM 2011/2 CRIQUE MARGERITE	
Day/ Date/ Hour: DIM 10/07/11 - 15H00	Route/ Km: RN 2 – PK 37,2	River: crique MARGERITE
GPS LOCATION:	N 4° 41.402' / W 52° 20'347 ALT: 5 M	
Position/ Pts marquants:	Point de collecte à mi-parcours sur la piste crique Margerite	
Ph:4,82	Killis présents: XIPHIDIUS (partie ombragée)+ LUNGI (principalement partie ensoleillée)	
Conductivity:10		
T° water: 26,4 T° air:29	Other fish/ animals/ vegetation: Apisto	
Photos/ N°: JL 297 à 298 et 23 24	 	
Comments/Miscellaneous: - New Collection Point – Juveniles		

FGLSM 2011: COLLECTING POINT n°3	Name: FGLSM 2011/3 DEGRAD ESKOL	
DAY/ DATE/ HOUR: LUND 11/07/11 à 10H00	Route/ Km: route de KAW	River: crique GABRIEL
GPS LOCATION:	N 4° 45. 300 / W 52° 16.618' ALT 22 M	
Position/ Pts marquants:		
Ph:6,94	Killis présents: GEAYI	
Conductivity:22		
T° water: 26,2 T° air: 28	Other fish/ animals/ vegetation: crevettes	
Photos/ N°: JL 31 32		
Comments/Miscellaneous: - Small oxygenated stream crossing the road.		

FGLSM 2011: COLLECTING POINT n°4	Name: FGLSM 2011/04 FOURGASSIER	
DAY/ DATE/ HOUR: LUND11/7/11 à 15H00	Route/ Km: route de KAW	River: crique ORAPOU
GPS LOCATION:	N 4° 43. 043 / W 52° 18.179' ALT 41 M	
Position/ Pts marquants:		
Ph:6,94	Killis présents: XIPH (partie basse) + CLADO (partie courante) + IGNEUS (pleine water et vasques) + AGI (partie haute)	
Conductivity:22		
T° water: 25,8 T° air: 29	Other fish/ animals/ vegetation: multiples	
Photos/ N°:		
Comments/Miscellaneous: - The most well-known collection point in French Guiana is located in a nature reserve. - Same pick-up point as FGLL07/07/03 and FGFSL 07/03		

FGLSM 2011: COLLECTING POINT n°5	Name: FGLSM 2011/05 SAUT MARIPA	
DAY/ DATE/ HOUR:11/07/11 17H	Route/ Km: RN2	River:
GPS LOCATION:	N 3° 57. 334 / W 51° 49.526 ALT 14 M	
Position/ Pts marquants:		
Ph:5,34	Killis présents: XIPH + GEAYI	
Conductivity:8		
T° water: 26,9 T° air:27	Other fish/ animals/ vegetation:	
Photos/ N°: JL 85	 Killifish (Xiphophorus) - FGLSM 2011/05 SAUT MARIPA Photo: J.L. Mard	
Comments/Miscellaneous: - Shady		

BRLSM 2011: COLLECTING POINT n°6	Name: BRLSM 2011/06 TARTARA PANASQUERA	
DAY/ DATE/ HOUR: M13/07/11 10H	Route/ Km:	River:
GPS LOCATION:	N 1° 38. 302 / W 50° 54.354 ALT 19 M	
Position/ Pts marquants:		
Ph:6,33	Killis présents: ALBAE	
Conductivity: 4		
T° water: 29,2 T° air: 29,9	Other fish/ animals/ vegetation:	
Photos/ N°:JL 151 à 153		
		
Comments/Miscellaneous: - Running water limit in full sun in the grass - Very hot water		

BRLSM 2011: COLLECTING POINT n°7	Name: BRLSM 2011/07 Florestal	
DAY/ DATE/ HOUR: M13/07/11 11H30	Route/ Km:	River:
GPS LOCATION:	N 1° 34. 690 / W 50° 57.996 ALT 11 M	
Position/ Pts marquants:		
Ph:5,53	Killis présents: ALBAE	
Conductivity:2		
T° water: 32,5 T° air: 32,7	Other fish/ animals/ vegetation:	
Photos/ N°: JL 159 160		
Comments/Miscellaneous: - Low grass full sun – juveniles		

BRLSM 2011: COLLECTING POINT n°8	Name: BRLSM 2011/08 El Pedrao	
Day/ Date/ Hour: M13/7/11; 12H30	Route/ Km:	River:
GPS LOCATION:	N 1° 33. 610 / W 50° 56.781 ALT 28 M	
Position/ Pts marquants:		
Ph:5,66	Killis présents: STRIG	
Conductivity:8		
T° water: 26,1 T° air: 33,5	Other fish/ animals/ vegetation:	
Photos/ N°: JL 176 à 181	 	
Comments/Miscellaneous: - Shaded - No vegetation in the water - Along the edge of the main watercourse hidden in vegetation debris - Juveniles.		

FGLSM 2011: COLLECTING POINT n°9		Name: BRLSM 2011/09 ALTOS DO JANAU	
Day/ Date/ Hour: M13/7/11; 17H		Route/ Km:	River:
GPS LOCATION:			
Position/ Pts marquants:			
Ph:		Killis présents: STRIG	
Conductivity:			
T° water:	T° air:	Other fish/ animals/ vegetation:	
Photos/ N°:			
Comments/Miscellaneous: - GPS coordinates and measurements not taken.			

FGLSM 2011: COLLECTING POINT n°10		Name: BRLSM 2011/10 RETIRO SANTA RITA	
Day/ Date/ Hour: 14/7/11		Route/ Km:	River:
GPS LOCATION:			
Position/ Pts marquants:			
Ph:	Killis présents: ALBAE et STRIG		
Conductivity:			
T° water:	T° air:	Other fish/ animals/ vegetation:	
Photos/ N°:			
Comments/Miscellaneous: - 2 collection points: - the first: due south in the sunny open in the middle of low grass: ALBAE - the second: due north 800 meters from the residence under the trees under cover: STRIG - GPS coordinates and measurements not taken but on either side of PATTY's house.			

FGLSM 2011: COLLECTING POINT n°11	Name: BRLSM 2011/11 Bon Jesus	
Day/ Date/ Hour: J14/7/11 10H	Route/ Km: 35	River:
GPS LOCATION:	N 1° 25. 172 / W 50° 59.237 ALT 40 M	
Position/ Pts marquants:		
Ph:5,15	Killis présents: rivulus sp (strigatus?)	
Conductivity: 14		
T° water: 27,8° T° air: 28,7°	Other fish/ animals/ vegetation: characidés	
Photos/ N°: - JL 205 à 215		
Comments/Miscellaneous: - Shady - Running water but fish on the edge in stagnant water - Branches and dead leaves in the water - Iselberg upstream.		

FGLSM 2011: COLLECTING POINT n°12	Name: BRLSM 2011/12 Acentamentos do Bon Jesus	
DAY/ DATE/ HOUR: 14/7/11 16H00	Route/ Km:	River:
GPS LOCATION:	N 1° 25. 171 / W 51° 02.876	ALT 55 M
Position/ Pts marquants:		
Ph: 5,52	Killis présents: CAJARIENSIS + STRIG	
Conductivity: 12		
T° water: 26,8° T° air: 30,2°	Other fish/ animals/ vegetation:	
Photos/ N°: - JL 216 à 218		
Comments/Miscellaneous: - Very shaded - At the edge of the water running in large puddles encumbered with dead leaves in mass - No rupecicole vegetation.		

FGLSM 2011: COLLECTING POINT n°13		Name: BRLSM 2011/13 Cachoeirinha	
DAY/ DATE/ HOUR: 14/7/11 / 10H15		Route/ Km:	River:
GPS LOCATION:			
Position/ Pts marquants:		N 1° 30. 048 / W 50° 52.574	ALT 9 M
Ph:6,4		Killis présents:	
Conductivity:6			
T° water: 26,6° T° air: 28,2°		Other fish/ animals/ vegetation:	
Photos/ N°: - LS 818		 	
Comments / Miscellaneous:			

FGLSM 2011: COLLECTING POINT n°14		Name: BRLSM 2011/14 MINA DE OURO	
Day/ Date/ Hour: 14/7/11 14H		Route/ Km:	River:
GPS LOCATION:		N 1° 33. 678 / W 50° 52.608	ALT 7 M
Position/ Pts marquants:			
Ph:5,97		Killis présents: ALBAE	
Conductivity:12			
T° water: 28° T° air: 30°		Other fish/ animals/ vegetation:	
Photos/ N°: - LS 240 à 261			
Comments/Miscellaneous: - Lost fish.			

FGLSM 2011: COLLECTING POINT n°15	Name: FGLSM 2011/15 Molokoi	
DAY/ DATE/ HOUR: S 16/7/11 à 11H30	Route/ Km:	River:
GPS LOCATION:	N 4° 37. 33 / W 52° 24.571	ALT 45 M
Position/ Pts marquants:		
Ph:6,5	Killis présents: riv IGN + riv CLAD	
Conductivity: 18		
T° water: 25,6° T° air: 29)	Other fish/ animals/ vegetation:	
Photos/ N°: - JL 287 à 290		
Comments/Miscellaneous: - IGNEUS touDays the same type of water-flowing oxygenated River - Evolves in open water - Id at fishing point n°4 but different from BRLSM 2011/12 where CAJARIENSIS is in stagnant water.		

FGLSM 2011: COLLECTING POINT n°16		Name: FGLSM 2011/16 Crique MANCELLIERE	
DAY/ DATE/ HOUR: 18/7/11 à 9H15		Route/ Km:N2	River: crique MANCELLIERE
GPS LOCATION:		N 4° 48. 195 / W 52° 20.239 ALT 13 M	
Position/ Pts marquants:		Sentier de La Mirande à MATOURY	
Ph:5,95		Killis présents: XIP + AGIL + Copella + Characidés+ poisson feuille...	
Conductivity: 25			
T° water: 25,5° T° air:27?3°		Other fish/ animals/ vegetation:	
Photos/ N°: ML 268 à 280			
Comments/Miscellaneous: - Mont du GRAND MATOURY (reserve created in 2006) - Same collection point as FGLL 07/ 01			

FGLSM 2011: COLLECTING POINT n°17	Name: FGLSM 2011/17 Crique COCHON SAUL	
DAY/ DATE/ HOUR: L 18/7/11 à 15H30	Route/ Km:	River: crique COCHON
GPS LOCATION:	N 3° 41. 069 / W 53° 12.705	ALT 120 M
Position/ Pts marquants:	Sentier ROCHE BATWATER, crique COCHON	
Ph:6,3	Killis présents: IGNEUS (?)	
Conductivity:53		
T° water: 26,8° T° air: 30°	Other fish/ animals/ vegetation:	
Photos/ N°: - LS 1121 à 1123		
Comments/Miscellaneous: - Sentier de ROCHE BATWATER - 40' walk from Saul - Collection only of young subjects - Must be Igneus???		

FGLSM 2011: COLLECTING POINT n°18	Name: FGLSM 2011/18 Crique Savon Saul	
DAY/ DATE/ HOUR: M20/7/11 à 9H15	Route/ Km:	River: Crique Savon Saul
GPS LOCATION:	N 3° 41. 068 / W 53° 12.705	ALT 244 M
Position/ Pts marquants:	Sentier BOEUF MORT, crique SAVON	
Ph: 6,22	Killis présents: riv sp GEAYI (?)	
Conductivity: 55		
T° water: 23,6° T° air: 27°	Other fish/ animals/ vegetation:	
Photos/ N°: - JL 366 à 369	 	
Comments/Miscellaneous: - Muddy but clear water - Under the trees in primary forest - Dense vegetation - Very marked GEAYI with black tail!! truly GEAYI???		

FGLSM 2011: COLLECTING POINT n°19		Name: FGLSM 2011/19 Crique Sauveur Saul	
Day/ Date/ Hour: M 20/7/11 à 10H30		Route/ Km:	River: Crique Sauveur
GPS LOCATION:		N 3° 41. 541 / W 53° 13.820	ALT 265 M
Position/ Pts marquants:		Sentier BOEUF MORT, crique SAUVEUR	
Ph:7,25		Killis présents: riv sp GEAYI (?)	
Conductivity: 97			
T° water: 24,1° T° air:27°		Other fish/ animals/ vegetation:	
Photos/ N°: - JL 370 et 371			
Comments/Miscellaneous: - ID que FGLSM 2011/ 18.			

FGLSM 2011: COLLECTING POINT n°20		Name: FGLSM 2011/20 Crique LIMONADE	
Day/ Date/ Hour: M 20/7/11 à 12H10		Route/ Km:	River:
GPS LOCATION:			
Position/ Pts marquants:			
Ph:		Killis présents: riv sp GEAYI (?)	
Conductivity:			
T° water:	T° air:	Other fish/ animals/ vegetation:	
Photos/ N°: - MM			
Comments/Miscellaneous: - Coordinates not recorded.			

FGLSM 2011: COLLECTING POINT n°21		Name: FGLSM 2011/21 NIOU KAMPOU APATOU	
Day/ Date/ Hour: S 23/7/11 à 10H15		Route/ Km: APATOU	River:
GPS LOCATION:		Route d'APATOU	
Position/ Pts marquants:			
Ph:		Killis présents: LUNGI	
Conductivity:			
T° water:	T° air:	Other fish/ animals/ vegetation:	
Photos/ N°: -MM			
Comments/Miscellaneous: - APATOU Road, 500 after the intersection leading to NIOU KAMPOU - Biotope in full sun, very dirty, "oxidized" as is often the case for the collection of these fish, with the exception of FGLSM 2011/2 and 5 .			

FGLSM 2011: COLLECTING POINT n°22	Name: FGLSM 2011/22 CHUTES VOLTAIRE	
Day/ Date/ Hour: M 26/7/11 à 8H30	Route/ Km: piste ISNARD	River: crique VOLTAIRE
GPS LOCATION:	N 5° 05. 537 / W 54° 05.224	ALT 53 M
Position/ Pts marquants:		
Ph: 6,62	Killis présents: Majoritairement IGN + AGIL + Apisto + Copella...Aimara..	
Conductivity: 56		
T° water: 25,6° T° air:27°	Other fish/ animals/ vegetation:	
Photos/ N°:		
Comments/Miscellaneous: - Fishing point identical to FGLL 07/ 07 - ISNARD TRACK 74 km including the last 4 imposed in 4*4 - An hour of walking to reach the falls.		

FGLSM 2011: COLLECTING POINT n°23	Name: FGLSM 2011/23 PARIACABO	
Day/ Date/ Hour: M26/7/11 à 18H45	Route/ Km: KOUROU	River:
GPS LOCATION:	N 5° 05. 833 / W 52° 40.111	ALT 17 M
Position/ Pts marquants:		
Ph:5,25	Killis présents:uniquement et exclusivement LUNGI	
Conductivity: 147		
T° water: 31,2° T° air: 33,7°	Other fish/ animals/ vegetation: NEANT	
Photos/ N°: - JL 602 à 608		
Comments/Miscellaneous: - Water temperature similar to ALBAE in BRAZIL but not almost unhealthy water quality - Collection point in front of the LIDL in full sun in the grass where almost no water but countless LUNGI. - fishing point identical to FGLL 07/02 (identical conditions).		

FGLSM 2011: COLLECTING POINT n°24	Name: FGLSM 2011/24 MONTAGNE DES SINGES	
Day/ Date/ Hour: Thursday 27/7/11 à 9H00	Route/ Km: Montagne des singes	River:
GPS LOCATION:	N 4° 54. 658 / W 54° 05.225	ALT 53 M
Position/ Pts marquants:	Forêt – water courante.	
Ph:5,33	Killis présents: IGNEUS (main stream and along)+ XIPH + AGIL (along the banks) + CLAD (main stream)	
Conductivity: 38		
T° water: 25° T° air: 28°	Other fish/ animals/ vegetation:	
Photos/ N°: - JL 609 à 627		
Comments/Miscellaneous: - SAUT PK 8 road after KOUROU in the direction of ST LAURENT.		

FGLSM 2011: COLLECTING POINT n°25	Name: FGLSM 2011/25 ELEOCHARIS MUTATA	
Day/ Date/ Hour: Wednesday 28/7/11 à 15H15	Route/ Km: Route des Plages	River: Mangrove
GPS LOCATION:	N 4° 51. 887 / W 52° 16.459	ALT 9 M
Position/ Pts marquants:	Salines de MONJOLY	
Ph:6,24	Killis présents: kryptocalus MARMORATUS??? + Micropoecilia picta + crabes + aff lungi	
Conductivity: > 3999		
T° water: 28,5° T° air: 30,5°	Other fish/ animals/ vegetation:	
Photos/ N°: - JL 609 à 627		
Comments/Miscellaneous: - Stagnant water with decaying palm leaves - Salinity not measured.		

Localization of the collected species

During our expedition, we registry the following collected points

Family	Species	Ref / Country		Location	Coordinates
Rivulus	Geayi; Igneus	FGLSM 2011/1	FG	Choses Dernieres	N 4° 37'.785 / W 52° 24. 017 ALT:32M
Rivulus	Xiphidius; Lungi	FGLSM 2011/2	FG	Crique Margerite	N 4° 41.402' / W 52° 20'347 ALT: 5 M
Rivulus	Geayi	FGLSM 2011/3	FG	Degrad Eskol	N 4° 45. 300 / W 52° 16.618' ALT 22 M
Rivulus	Xiphidius; Igneus Agilae; Cladophorus	FGLSM 2011/4	FG	Fourgassier	N 4° 43. 043 / W 52° 18.179' ALT 41 M
Rivulus	Xiphidius; Lungi	FGLSM 2011/5	FG	Saut Maripa	N 3° 57. 334 / W 51° 49.526 ALT 14 M
Rivulus	Albae	BRLSM 2011/6	Brazil	Tartata Panasqueira	N 1° 38. 302 / W 50° 54.354 ALT 19 M
Rivulus	Albae	BRLSM 2011/7	Brazil	Florestal	N 1° 34. 690 / W 50° 57.996 ALT 11 M
Rivulus	Strigatus	BRLSM 2011/8	Brazil	El Pedrao	N 1° 33. 610 / W 50° 56.781 ALT 28 M
Rivulus	Strigatus	BRLSM 2011/9	Brazil	Altos do Janau	
Rivulus	Strigatus; Albae	BRLSM 2011/10	Brazil	Retiro Santa Rita	
Rivulus	Sp???	BRLSM 2011/11	Brazil	Bon Jesus	N 1° 25. 172 / W 50° 59.237 ALT 40 M
Rivulus	Cajariensis; Strigatus	BRLSM 2011/12	Brazil	Acentamentos Bon Jesus	N 1° 25. 171 / W 51° 02.876 ALT 55 M
Rivulus	Sp????;	BRLSM 2011/13	Brazil	Cachoeirinha	N 1° 30. 048 / W 50° 52.574 ALT 9 M
Rivulus	Albae	BRLSM 2011/14	Brazil	Mina de Ouro	N 1° 33. 678 / W 50° 52.608 ALT 7 M
Rivulus	Igneus; Cladophorus	FGLSM 2011/15	FG	Molokoi	N 4° 37. 33 / W 52° 24.571 ALT 45 M
Rivulus	Xiphidius; Agilae	FGLSM 2011/16	FG	Crique Mancelliere	N 4° 48. 195 / W 52° 20.239 ALT 13 M
Rivulus	Igneus; Sp Geayi	FGLSM 2011/17	FG	Crique Cochon Saul	N 3° 41. 069 / W 53° 12.705 ALT 120 M
Rivulus	Igneus; Sp. Geayi	FGLSM 2011/18	FG	Crique Savon Saul	N 3° 41. 068 / W 53° 12.705 ALT 244 M
Rivulus	Igneus; Sp. Geayi	FGLSM 2011/19	FG	Crique Sauveur Saul	N 3° 41. 541 / W 53° 13.820 ALT 265 M

Family	Species	Ref / Country		Location	Coordinates
Rivulus	Igneus; Sp.Geayi	FGLSM 2011/20	FG	Crique Limonade Saul	
Rivulus	Lungi	FGLSM 2011/21	FG	Niou Kampou Apatou	
Rivulus	Igneus; Agilae	FGLSM 2011/22	FG	Chutes Voltaire	N 5° 05. 537 / W 54° 05.224 ALT 53 M
Rivulus	Lungi;	FGLSM 2011/23	FG	Pariacabo	N 5° 05. 833 / W 52° 40.111 ALT 17 M
Rivulus	Xiphidius; Agilae; Cladophorus; Igneus	FGLSM 2011/24	FG	Montagne Des Singes	N 4° 54. 658 / W 54° 05.225 ALT 53 M
Rivulus	SP	FGLSM 2011/25	FG	Monjoly	N 4° 51. 887 / W 52° 16.459
Rivulus	Kryp. Marmoratus? + aff lungi	FGLSM 2011/25		ELEOCHARIS MUTATA	
Rivulus	agilae	FGLSM 2011/26		SENTIER DU ROROTA	

Photos

Some pictures of the expedition

















---- End of the Expedition----

For Now....