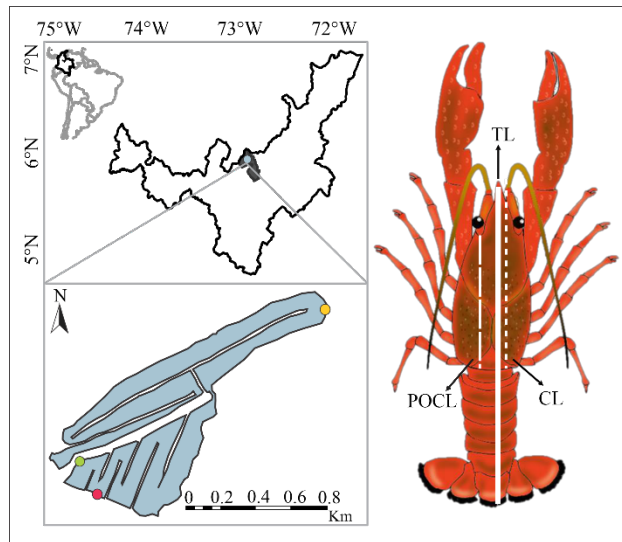




SMF 1. Study area and measurements taken of *Procambarus clarkii*. TL: Total length. CL: Carapace length. POCL: Postorbital carapace length. Pink spot: *P. punctatum*, green spot: *J. effusus*, yellow spot: *L. peruviana*.

SMT 1

Physicochemical parameters of water in the macrophyte transects from the study area

Month	Macrophyte species	Temperature (°C)	Conductivity (μS/cm)	Dissolved Oxygen (mg/L)	pH	Substrate
May	<i>Juncus effusus</i>	19.00	130.10	9.10	7.51	Clayey
	<i>Ludwigia peruviana</i>	20.00	139.20	8.48	9.96	Stony
	<i>Polygonum punctatum</i>	20.00	138.80	7.54	8.01	Muddy
	<i>Juncus effusus</i>	15.60	160.10	1.47	7.00	Clayey
July	<i>Ludwigia peruviana</i>	19.90	153.90	3.83	9.03	Stony
	<i>Polygonum punctatum</i>	16.00	161.40	1.44	7.03	Muddy
	<i>Juncus effusus</i>	20.60	164.40	2.04	6.80	Clayey
	<i>Ludwigia peruviana</i>	20.10	161.80	1.94	6.93	Stony
September	<i>Polygonum punctatum</i>	19.10	160.60	1.50	6.90	Muddy
	<i>Juncus effusus</i>	20.90	152.60	2.69	7.06	Clayey
November	<i>Ludwigia</i>	20.10	151.06	2.21	6.92	Stony

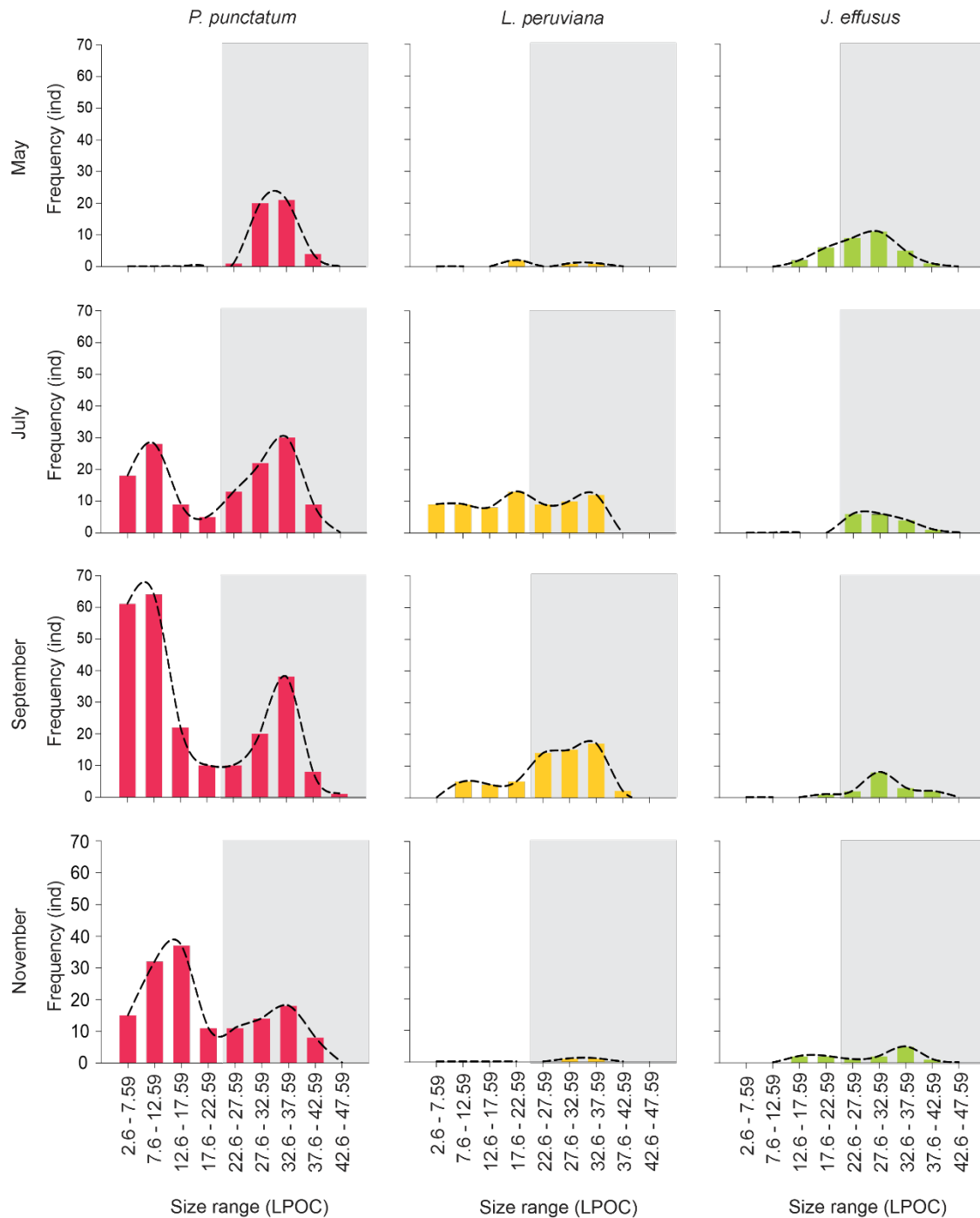
<i>peruviana</i> <i>Polygonum</i> <i>punctatum</i>	20.00	152.40	2.12	7.39	Muddy
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SMT 2

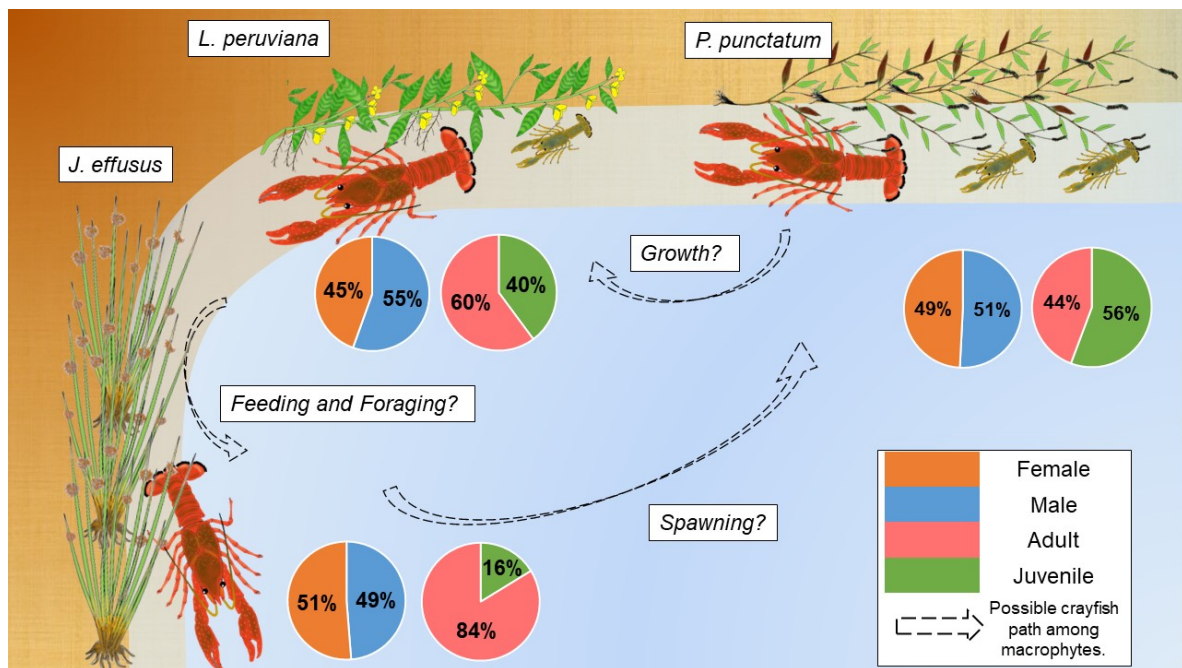
Morphometry of *Procambarus clarkii* specimens evaluated in the study

Description	N° indiv.	Weight (gr)		Total length (mm)		POCL (mm)		Carapace length (mm)	
		Rank	Mean±des	Rank	Mean±des	Rank	Mean±des	Rank	Mean±des
<i>Juncus effusus</i>	80	1.1-25.7	11±5.9	40.5-106.1	78.2±14.4	14.1-41.3	28.9±6	17.9-54.6	38.7±7.6
May	34	1.1-22.2	9.2±5.0	40.5-99.7	74.0±14.4	14.1-37.9	27.3±5.9	17.9-50.8	36.5±7.8
Female	12	2.0-15.6	7.4±4.5.0	48.2-90.9	69.4±13.3	16.1-34.3	25±5.6	22.6-45.0	33.9±7.0
Male	22	1.1-22.2	10.2±5.1	40.5-99.7	76.5±14.7	14.1-37.9	28.5±5.9	17.9-50.8	38.0±7.9
Jul	17	4.7-24.5	11.7±5.5	61.9-105.2	79.8±11.7	22.7-38.0	29.7±4.5	31.1-50.3	39.1±5.5
Female	7	5.0-24.5	12.8±6.7	62.5-105.2	81.5±13.9	22.7-38.0	30.3±5.2	31.2-50.3	39.8±6.5
Male	10	4.7-20.1	10.9±4.8	61.9-94.2	78.7±10.5	23.4-36.6	29.2±4.1	31.1-47.0	38.6±5.0
Sep	16	4.7-23.4	12.5±5.4	62.3-106.1	83.2±11.5	22.1-41.3	31.0±5.1	30.1-54.6	41.7±6.3
Female	9	4.7-23.4	13.6±6.5	62.3-106.1	85.1±14	22.1-41.3	31.8±6.1	30.1-54.6	42.7±7.7
Male	7	6.7-18.0	11.0±3.6	70.9-94.8	80.9±7.7	25.1-36.7	30.0±3.7	35.6-47.4	40.4±3.9
Nov	13	2.0-25.7	12.7±8.1	48.7-105.1	81.2±18.5	15.8-39.4	29.3±8.2	23.4-51.9	40.1±9.8
Female	11	2.0-25.7	12.6±7.9	48.7-105.1	81.3±18.6	15.8-39.4	29.4±8.3	23.4-51.9	40.4±9.7
Male	2	4.1-21.9	13.0±12.6	61.8-98.6	80.2±26.0	21.2-36.7	28.9±11	28.7-49.0	38.9±14.4
<i>Ludwigia peruviana</i>	138	0.01-23.1	8.0±6.3	11.6-153.6	65.9±25.1	4.4-40.9	24.3±9.4	6.1-54.2	32.5±12.2
May	4	4.1-15.7	9.3±5.8	57.5-85.9	71.2±15.3	20.6-34.9	27.1±7.0	28.3-45.6	36.4±8.5
Female	2	4.5-12.7	8.6±5.8	58.6-82.9	70.8±17.2	21.9-31.1	26.5±6.5	30.2-41.7	35.9±8.1
Male	2	4.1-15.7	9.9±8.2	57.5-85.9	71.7±20.1	20.6-34.9	27.7±10.1	28.3-45.6	37±12.3
Jul	70	0.7-20.2	6.4±6.3	11.6-100.6	57.2±25.4	4.4-36.8	21.2±9.9	6.1-48.5	28.2±12.7
Female	34	0.7-20.2	7.6±7.3	17.7-100.6	59.1±28.8	6.2-36.8	22±11.4	8.7-48.5	29.4±14.3
Indeterminate	1	0.01-0.01	0.01±0.0	11.6-11.6	11.6±0.0	4.4-4.4	4.4±0.0	6.1-6.1	6.1±0.0
Male	35	0.2-18.6	5.4±4.9	17.9-94.5	56.7±20.8	6.8-36	20.9±8	7.6-47.4	27.7±10.6
Sep	62	0.3-23.1	9.6±5.9	22.0-153.6	74.5±22.3	8.2-40.9	27.4±7.9	11-54.2	36.7±10.1
Female	39	0.3-19.6	8.9±6.0	22.0-101.5	70.3±21.2	8.2-38.8	25.8±8.3	11-50.9	34.9±10.6
Male	23	0.3-23.1	10.9±5.6	22.2-153.6	81.7±22.7	9.0-40.9	30.1±6.5	11.4-54.2	39.9±8.5
Nov	2	13.4-17.3	15.4±2.8	84.4-93.5	89±6.4	31.1-35.9	33.5±3.3	41.8-46.4	44.1±3.2
Female	1	17.3-17.3	17.3±0.0	93.5-93.5	93.5±0.0	35.9-35.9	35.9±0.0	46.4-46.4	46.4±0.0
Male	1	13.4-13.4	13.4±0.0	84.4-84.4	84.4±0.0	31.1-31.1	31.1±0.0	41.8-41.8	41.8±0.0
<i>Polygonum punctatum</i>	560	0.05-31.2	7.0±7.7	8.1-110.6	55.4±30	2.7-43.5	20.4±11.8	4.1-57.1	27.4±15.2

May	46	7.5-23.3	14.3±3.4	71.5-101.1	86.9±6.8	26.7-40.8	33.3±3.0	36.2-53.3	43.8±3.9
Female	18	8.9-22.3	13.8±3.5	75.4-100.9	86.4±7	28.6-38.3	32.4±2.6	37.3-51.1	42.7±3.8
Male	28	7.5-23.3	14.6±3.3	71.5-101.1	87.2±6.7	26.7-40.8	33.9±3.1	36.2-53.3	44.5±3.9
Jul	134	0.1-27.2	8.3±7.9	8.1-106.7	60.0±30.0	2.7-41.4	22.4±12	4.1-53.4	29.8±15.4
Female	65	0.1-27.2	8.3±8.1	16.6-106.7	60.4±29.9	5.6-41.4	22.5±11.8	7.1-53.4	29.8±15.2
Indeterminate	8	0.1-0.3	0.1±0.0	8.1-19.0	12.9±4.8	2.7-6.2	4.1±1.6	4.1-8.6	6.0±2.0
Male	61	0.1-26.8	9.3±7.8	18.2-99.0	65.7±26.7	6.7-39.7	24.7±10.9	9.6-50.9	32.9±13.8
Sep	234	0.05-31.2	5.5±7.5	14.7-110.6	47.3±30.4	5.1-43.5	17.3±11.7	7.1-57.1	23.6±15.2
Female	82	0.1-27.2	7.7±8.1	14.8-108.3	58.5±29.7	5.8-39.7	21.6±11.5	8.3-54.4	29.2±14.7
Indeterminate	56	0.05-0.1	0.08±0.03	14.7-20.7	17.6±3.1	5.1-7.1	6.0±1.0	7.1-9.9	8.4±1.4
Male	96	0.1-31.2	6.7±7.7	19.4-110.6	55.1±28.6	7.2-43.5	20.1±11.1	10.6-57.1	27.6±14.3
Nov	146	0.1-27.1	5.9±7.4	17.6-106.1	54.4±26.6	4.6-40.9	19.4±10.3	8.2-54.1	26.2±13.7
Female	85	0.1-27.1	4.6±6.4	17.6-106.1	50.3±24.5	6.3-40.9	17.7±9.1	8.2-54.1	24.0±12.3
Indeterminate	4	0.1-0.9	0.15±0.07	18.5-37.6	24.5±8.9	6.2-12.5	8.3±2.8	8.7-15.8	11.3±3.1
Male	57	0.1-24.7	8.3±8.5	19.4-103.1	62.6±27.8	4.6-39.8	22.7±11.2	9.3-52.2	30.6±14.6
Overall total	778	0.01-31.2	7.6±7.4	8.1-153.6	59.6±28.9	2.7-43.5	22±11.3	4.1-57.1	29.5±14.6



SMF 2. Size range of red swamp crayfish by macrophyte and per month, assessed in a tropical high mountain aquatic ecosystem. The areas of the charts in gray represent the sizes of adult individuals. Sizes in millimeters.



SMF 3. Habitat use by red crayfish in the macrophytes evaluated. *J. effusus* (*Juncus effusus*), *L. peruviana* (*Ludwigia peruviana*), *P. punctatum* (*Polygonum punctatum*).