

Supplementary file 1. Analyzed sound files of the five *Pithecopus* species: *P. araguaius*, *P. hypochondrialis*, *P. azureus*, *P. nordestinus* and *P. gonzagai* sp. nov. AAG-UFU stands for Ariovaldo Antonio Giaretta sound collection (Universidade Federal de Uberlândia, Brazil); FNJV stands for Fonoteca Neotropical Jacques Vielliard (FNJV) (Universidade Estadual de Campinas, Brazil); ZUEC stands for Museu de Zoologia da Universidade Estadual de Campinas. <https://doi.org/10.5852/ejt.2020.723.1147.3071>

Species	Sound archive voucher	Date	Municipality (state)	Time	Air (°C)	Water (°C)	Voucher specimen
<i>Pithecopus araguaius</i>	Pithec_araguaiusPontalAraguMT1aAAGmt.wav	15 February 2010	Pontal do Araguaia (MT)	22:20	22.0	26.0	AAG-UFU 4877
	Pithec_araguaiusPontalAraguMT1bAAGmt.wav	15 February 2010	Pontal do Araguaia (MT)	22:25	22.0	26.0	AAG-UFU 4877
	Pithec_araguaiusPontalAraguMT1cAAGmt.wav	15 February 2010	Pontal do Araguaia (MT)	22:30	22.0	26.0	AAG-UFU 4877
	Pithec_araguaiusPontalAraguMT2aAAGmt.wav	15 February 2010	Pontal do Araguaia (MT)	22:55	22.0	26.0	AAG-UFU 4878
	Pithec_araguaiusPontalAraguMT2bAAGmt.wav	15 February 2010	Pontal do Araguaia (MT)	22:57	22.0	26.0	AAG-UFU 4878
	Pithec_araguaiusPontalAraguMT2cAAGmt.wav	15 February 2010	Pontal do Araguaia (MT)	23:00	22.0	26.0	AAG-UFU 4878
	Pithec_araguaiusPontalAraguMT2dAAGmt.wav	15 February 2010	Pontal do Araguaia (MT)	23:05	22.0	26.0	AAG-UFU 4878
	Pithec_araguaiusPontalAraguMT3aAAGm671.wav	06 January 2014	Pontal do Araguaia (MT)	20:41	26.0	30.0	AAG-UFU 3444
	Pithec_araguaiusPontalAraguMT3bAAGm671.wav	06 January 2014	Pontal do Araguaia (MT)	20:43	26.0	30.0	AAG-UFU 3444
	Pithec_araguaiusPontalAraguMT3cAAGm671.wav	06 January 2014	Pontal do Araguaia (MT)	20:45	26.0	30.0	AAG-UFU 3444
	Pithec_araguaiusPontalAraguMT5aIAH_AAGmt.wav	07 January 2014	Pontal do Araguaia (MT)	23:46	25.0	31.0	-
	Pithec_araguaiusPontalAraguMT5bIAH_AAGmt.wav	07 January 2014	Pontal do Araguaia (MT)	23:56	25.0	31.0	-
	Pithec_araguaiusPontalAraguMT5cIAH_AAGmt.wav	07 January 2014	Pontal do Araguaia (MT)	00:09	25.0	31.0	-
	Pithec_araguaiusPontalAraguMT5dIAH_AAGmt.wav	07 January 2014	Pontal do Araguaia	00:09	25.0	31.0	-

			(MT)				
	Pithec_araguaiusPontalAraguMT5eIAH_AAGmt.wav	07 January 2014	Pontal do Araguaia (MT)	00:11	25.0	31.0	-
	Pithec_araguaiusPontalAraguMT6aFSA_AAGb.wav	07 January 2014	Pontal do Araguaia (MT)	-	25.0	31.0	AAG-UFU 3449
	Pithec_araguaiusPontalAraguMT7aAAGm671.wav	01 December 2014	Pontal do Araguaia (MT)	21:05	26.0	27.0	-
	Pithec_araguaiusPontalAraguMT9aAAGm671.wav	03 December 2014	Pontal do Araguaia (MT)	02:34	26.0	27.0	AAG-UFU 5042
<i>Pithecopus hypochondrialis</i>	Pithec_hypochAraguariMG2aTRC_LMmt.wav	08 December 2009	Araguari (MG)	21:34	21.2	22.6	-
	Pithec_hypochAraguariMG3aTRC_LMmt.wav	08 December 2009	Araguari (MG)	21:54	21.2	22.6	-
	Pithec_hypochAraguariMG4aTRC_LMmt.wav	08 December 2009	Araguari (MG)	22:13	21.2	22.6	-
	Pithec_hypochAraguariMG5aTRC_LMmt.wav	08 December 2009	Araguari (MG)	22:13	21.2	22.6	AAG-UFU 4832
	Pithec_hypochAraguariMG6aTRC_LMmt.wav	09 December 2009	Araguari (MG)	00:30	20.0	22.6	-
	Pithec_hypochAraguariMG7aTRC_LMmt.wav	09 December 2009	Araguari (MG)	00:26	20.0	22.6	-
	Pithec_hypochAraguariMG8aTRC_LMmt.wav	09 December 2009	Araguari (MG)	01:09	20.0	22.6	-
	Pithec_hypochAraguariMG9aAAGm.wav	06 November 2010	Araguari (MG)	02:10	22.0	23.0	-
	Pithec_hypochAraguariMG10aAAGm.wav	06 November 2010	Araguari (MG)	22:35	22.5	23.0	-
	Pithec_hypochBarraGarcasMT1aAAGm.wav	20 February 2012	Barra do Garças (MT)	00:19	22.0	25.0	AAG-UFU 1082
	Pithec_hypochBarraGarcasMT2aAAGmt.wav	19 February 2012	Barra do Garças (MT)	23:34	22.0	25.0	AAG-UFU 1083
	Pithec_hypochBarraGarcasMT2bAAGmt.wav	19 February 2012	Barra do Garças (MT)	23:39	22.0	25.0	AAG-UFU 1083
	Pithec_hypochBarraGarcasMT2cAAGmt.wav	19 February 2012	Barra do Garças (MT)	23:42	22.0	25.0	AAG-UFU 1083
	Pithec_hypochBarraGarcasMT3aAAGm671.wav	09 January 2014	Barra do Garças (MT)	22:31	26.0	29.0	-
	Pithec_hypochBarraGarcasMT4aAAGm671.wav	09 January 2014	Barra do Garças (MT)	22:31	26.0	29.0	AAG-UFU 3489
	Pithec_hypochBarraGarcasMT4bAAGm671.wav	09 January 2014	Barra do Garças (MT)	22:35	26.0	29.0	AAG-UFU 3489
	Pithec_hypochBarraGarcasMT5aCSB_AAGm671.wav	09 January 2014	Barra do Garças (MT)	22:42	26.0	29.0	-
	Pithec_hypochBrasiliaDF1aAAGm671.wav	13 January 2015	Brasília (DF)	22:33	24.0	25.0	-
	Pithec_hypochBrasiliaDF1bAAGm671.wav	13 January 2015	Brasília (DF)	22:33	24.0	25.0	-
	Pithec_hypochBrasiliaDF1cAAGm671.wav	13 January 2015	Brasília (DF)	22:49	24.0	25.0	-
Pithec_hypochPadBernarGO1aAAGm.wav	10 December 2010	Padre Bernardo (GO)	23:00	24.6	26.5	-	
Pithec_hypochPadBernarGO1bAAGm.wav	10 December 2010	Padre Bernardo (GO)	23:07	24.6	26.5	-	
Pithec_hypochPirenopGO1aAAGm.wav	11 February 2011	Pirenópolis (GO)	20:13	23.0	27.0	AAG-UFU	

							0331
Pithec_hypochPirenopGO2aAAGm.wav	12 February 2011	Pirenópolis (GO)	22:00	24.0	26.0	AAG-UFU	0332
Pithec_hypochPirenopGO3aAAGm.wav	12 February 2011	Pirenópolis (GO)	22:14	24.0	26.0	AAG-UFU	0333
Pithec_hypochUberlMG1aAAGm.wav	22 December 2009	Uberlândia (MG)	03:00	18.0	20.0	-	-
Pithec_hypochUberlMG3aAAGm.wav	22 December 2009	Uberlândia (MG)	03:40	18.0	20.0	-	-
Pithec_hypochUberlMG4aAAGm.wav	22 December 2009	Uberlândia (MG)	03:41	18.0	20.0	-	-
Pithec_hypochUberlMG7aAAGm671.wav	14 October 2011	Uberlândia (MG)	20:10	21.0	25.0	-	-
Pithec_hypochUberlMG8bAAGm671.wav	14 October 2011	Uberlândia (MG)	20:05	21.0	25.0	-	-
Pithec_hypochUberlMG9aAAGm671.wav	14 October 2011	Uberlândia (MG)	-	21.0	25.0	-	-
Pithec_hypochUberlMG10aAAGm671.wav	14 October 2011	Uberlândia (MG)	20:23	21.0	25.0	-	-
Pithec_hypochUruacuGO1aAAGm.wav	25 January 2012	Uruaçu (GO)	22:31	23.0	27.0	AAG-UFU	0991
Pithec_hypochUruacuGO1bAAGm.wav	25 January 2012	Uruaçu (GO)	22:41	23.0	27.0	AAG-UFU	0991
Pithec_hypochUruacuGO2aAAGm.wav	25 January 2012	Uruaçu (GO)	22:54	23.0	27.0	AAG-UFU	0992
Pithec_hypochUruacuGO2bAAGm.wav	25 January 2012	Uruaçu (GO)	23:13	23.0	27.0	AAG-UFU	0992
Pithec_hypochUruacuGO3aAAGm.wav	25 January 2012	Uruaçu (GO)	23:15	23.0	27.0	AAG-UFU	0993
Pithec_hypochUruacuGO5aAAGm.wav	25 January 2012	Uruaçu (GO)	23:25	23.0	27.0	-	-
Pithec_hypochUruacuGO6aAAGm.wav	25 January 2012	Uruaçu (GO)	23:34	23.0	27.0	-	-
Pithec_hypochUruacuGO6bAAGm.wav	25 January 2012	Uruaçu (GO)	23:38	23.0	27.0	-	-
Pithec_hypochondSNavioAP1aAAGm661MK2.wav	27 March 2017	Serra do Navio (AP)	19:48	26.0	-	-	-
Pithec_hypochondSNavioAP2aAAGm661MK2.wav	27 March 2017	Serra do Navio (AP)	22:11	26.0	-	-	-
Pithec_hypochondSNavioAP2bAAGm661MK2.wav	27 March 2017	Serra do Navio (AP)	22:31	26.0	-	-	-
Pithec_hypochondSNavioAP4aAAGm661MK2.wav	27 March 2017	Serra do Navio (AP)	22:57	26.0	-	-	-
Pithec_hypochondSNavioAP5aAAGm661MK2.wav	28 March 2017	Serra do Navio (AP)	19:24	26.0	-	AAG-UFU	5998
Pithec_hypochondSNavioAP6aAAGm661MK2.wav	28 March 2017	Serra do Navio (AP)	20:21	26.0	-	-	-
Pithec_hypochondSNavioAP7aAAGm661MK2.wav	28 March 2017	Serra do Navio (AP)	20:34	26.0	-	-	-
Pithec_hypochondSNavioAP7bAAGm661MK2.wav	28 March 2017	Serra do Navio (AP)	20:55	26.0	-	-	-
Pithec_hypochondSNavioAP7cAAGm661MK2.wav	28 March 2017	Serra do Navio (AP)	20:57	26.0	-	-	-
Pithec_hypochondSNavioAP7dAAGm661MK2.wav	28 March 2017	Serra do Navio (AP)	20:58	26.0	-	-	-
Pithec_hypochondSNavioAP7eAAGm661MK2.wav	28 March 2017	Serra do Navio (AP)	20:59	26.0	-	-	-
Pithec_hypochondSNavioAP8aAAGm661MK2.wav	29 March 2017	Serra do Navio (AP)	20:37	26.0	-	-	-
Pithec_hypochondSNavioAP9aAAGm661MK2.wav	29 March 2017	Serra do Navio (AP)	20:39	26.0	-	-	-
Pithec_hypochondSNavioAP9bAAGm661MK2.wav	29 March 2017	Serra do Navio (AP)	20:43	26.0	-	-	-
<i>Pithecopus azureus</i> Pithec_azurBelaVistaMS1aTRC_AAGmt.wav	18 December 2010	Bela Vista (MS)	20:40	26.0	32.0	AAG-UFU	

	Pithec_azurBelaVistaMS1bTRC_AAGmt.wav	18 December 2010	Bela Vista (MS)	20:43	26.0	32.0	0148 AAG-UFU
	Pithec_azurBelaVistaMS1cTRC_AAGmt.wav	18 December 2010	Bela Vista (MS)	20:44	26.0	32.0	0148 AAG-UFU
	Pithec_azurBelaVistaMS2aTRC_AAGmt.wav	18 December 2010	Bela Vista (MS)	20:52	26.0	32.0	0148 AAG-UFU
	Pithec_azurBelaVistaMS2bTRC_AAGmt.wav	18 December 2010	Bela Vista (MS)	20:55	26.0	32.0	0149 AAG-UFU
	Pithec_azurBelaVistaMS2cTRC_AAGmt.wav	18 December 2010	Bela Vista (MS)	21:01	26.0	32.0	0149 AAG-UFU
	Pithec_azurBelaVistaMS2dTRC_AAGmt.wav	18 December 2010	Bela Vista (MS)	-	26.0	32.0	0149 AAG-UFU
	Pithec_azurBelaVistaMS3aTRC_AAGmt.wav	18 December 2010	Bela Vista (MS)	21:06	26.0	32.0	0149 AAG-UFU
	Pithec_azurBelaVistaMS4aTRC_AAGmt.wav	18 December 2010	Bela Vista (MS)	23:14	31.0	27.0	0150 AAG-UFU
<i>Pithecopus nordestinus</i>	FNJV 12243	05 May 2011	Areia Branca (SE)	21:20	27.0	-	0151 -
	FNJV 12244	05 May 2011	Areia Branca (SE)	21:22	27.0	-	-
	FNJV 12245	05 May 2011	Areia Branca (SE)	21:22	27.0	-	-
	FNJV 12247	06 May 2011	Maruim (SE)	21:10	27.0	-	-
	FNJV 32463	19 August 2006	Itabaiana (SE)	00:00	21.0	-	-
	FNJV 31155	18 December 1990	Gandu (BA)	23:00	-	-	ZUEC 8703
	FNJV 45456	20 November 2007	Igrapiúna (BA)	21:04	22.3	-	-
	FNJV 45468	20 November 2007	Igrapiúna (BA)	22:31	21.0	-	-
<i>P. gonzagai</i> sp. nov.	FNJV 12232	17 May 2011	Limoeiro (PE)	19:35	29.0	26.0	-
	FNJV 12231	17 May 2011	Limoeiro (PE)	19:36	29.0	26.0	-
	FNJV 12233	22 May 2011	Araruna (PB)	20:45	28.0	-	-
	FNJV 12234	24 May 2011	Macaíba (RN)	20:45	29.0	-	-
	FNJV 12235	24 May 2011	Macaíba (RN)	20:54	29.0	-	-
	FNJV 12236	24 May 2011	Macaíba (RN)	22:07	28.0	25.0	-
	FNJV 12248	07 May 2011	São Miguel dos Milagres (AL)	20:15	29.0	-	-
	Pithec_nordestMacaibaRN1aTRC_AAGm671.wav	28 May 2014	Macaíba (RN)	19:11	28	-	-