Supplementary online material

Table S1. Morphometric proportions considered in the analysis of phenetic groups of species of *Leptodactylus* based on tadpoles, with classification of ratios. Position of the nostrils and the spiracle were determined relative to the longitudinal axis. BH = body height; BL = body length; DFH = maximum dorsal fin height; ED = eye diameter; SL = spiracle length; SW = spiracle width; TaH = tail height; TaL = tail length; TL = total length; TMH = maximum tail muscle height; VFH = maximum ventral fin height.

Measure	Formula	Ratios	Classification
Spiracle length	SL/BL	< 0.13 > 0.13	Short Long
Spiracle width	SW/BH	> 0.18 < 0.18	Wide Narrow
Maximum dorsal fin height	DFH/TMH	> 1.0 < 0.89 0.89 - 1.0	High Low Intermediate
Maximum ventral fin height	VFH/TMH	> 1.0 < 0.89 0.89 - 1.0	High Low Intermediate
Total length	TL	- 30 > 30, - 40 > 40	Short Intermediate Long
Body size	BL/TL	- 0.29 > 0.29, - 0.35 > 0.35	Small Intermediate Large
Tail length	TaL/TL	- 0.65 > 0.65, - 0.69 > 0.69	Short Intermediate Long
Body height	BH	- 7 > 7	Low High
Tail height	TaH/BH	- 1.02 > 1.02	Low High
Tail muscle height	TMH/TaH	- 0.5 > 0.5	Low High
Eyes diameter	ED/BL	- 0.11 > 0.11, - 0.17 > 0.03	Small Intermediate Large

Table S2. Morphometric dimensions of *Leptodactylus* tadpoles. TL = total length; BL = body length; TaL = tail length; BH = body height; TaH = Tail height; ED = eye diameter; SL = spiracle length; SW = spiracle width; TMH = tail muscle height; DFH = dorsal fin height; VFH = ventral fin height. BR = *Leptodactylus plaumanni* from Brazil; AR = *L. plaumanni* from Argentina.

Species	**TL**	**BL**	**TaL**	**BH**	**TaH**	**ED**	**SL**	**SW**	**TMH**	**DFH**	**VFH**
L. caatingae	32.10	0.36	0.64	5.60	1.23	0.16	0.15	0.23	0.43	0.80	0.73
L. cunicularius	37.98	0.37	0.62	7.76	0.98	0.13	0.14	0.28	0.43	0.73	0.70
L. elenae	21.57	0.39	0.61	3.80	1.57	0.11	0.19	0.31	0.24	0.99	0.80
L. furnarius	25.81	0.35	0.65	4.82	0.95	0.12	0.13	0.31	0.42	0.74	0.92
L. fuscus	27.76	0.35	0.65	5.70	1.19	0.15	0.17	0.30	0.33	0.94	0.75
L. gracilis	29.80	0.40	0.60	6.40	1.01	0.13	0.10	0.20	0.46	0.77	0.60
L. jolyi	34.67	0.37	0.63	7.28	1.12	0.15	0.17	0.18	0.37	0.80	0.77
L. latinasus	23.10	0.39	0.61	4.10	3.39	0.22	0.38	0.38	0.12	0.82	0.77
L. longirostris	26.01	0.35	0.65	5.39	1.18	0.15	0.10	0.29	0.44	0.76	0.54
L. mystacinus	33.55	0.34	0.66	5.81	0.77	0.07	0.09	0.18	0.70	0.49	0.43
L. notoaktites	22.3	0.36	0.64	3.90	3.28	0.22	0.23	0.49	0.12	0.97	1.03
L. plaumanni (BR)	35.00	0.40	0.60	8.63	1.30	0.08	0.12	0.17	0.27	0.86	0.84
L. plaumanni (AR)	29.06	0.32	0.68	4.44	1.23	0.13	0.15	0.25	0.52	0.60	0.49
L. poecilochilus	35.60	0.34	0.66	6.97	0.86	0.11	0.08	0.18	0.42	0.88	0.74
L. spixi	23.07	0.34	0.66	4.09	0.99	0.12	0.14	0.18	0.43	0.79	0.72
L. melanonotus	26.00	0.35	0.65	4.97	1.13	0.21	0.10	0.16	0.32	0.94	0.89
L. podicipinus	25.03	0.39	0.62	4.83	1.34	0.20	0.18	0.16	0.37	0.67	0.61
L. pustulatus	29.07	0.37	0.63	4.54	1.81	0.19	0.16	0.37	0.29	0.95	0.84
L. silvanimbus	37.60	0.32	0.68	7.96	0.87	0.14	0.14	0.25	0.49	0.84	0.78
L. insularum	35.20	0.32	0.68	5.98	1.01	0.11	0.14	0.29	0.45	0.81	0.87
L. latrans	58.68	0.34	0.66	11.17	0.90	0.07	0.08	0.17	0.45	0.90	0.92
L. macrosternum	34.77	0.33	0.67	11.57	0.66	0.17	0.16	0.14	0.77	0.76	0.68
L. knudseni	67.65	0.18	0.82	5.64	0.99	0.12	0.10	0.18	0.56	0.56	0.50
L. labyrinthicus	48.10	0.25	0.75	5.99	0.66	0.08	0.08	0.13	0.75	0.58	0.47
L. pentadactylus	71.47	0.24	0.76	10.52	0.80	0.15	0.11	0.16	0.66	0.45	0.47
L. rhodonotus	59.00	0.34	0.66	9.20	0.69	0.16	0.05	0.17	0.69	0.57	0.39
L. savagei	40.40	0.34	0.66	7.49	1.03	0.11	0.10	0.11	0.45	0.51	0.48
L. vastus	49.30	0.30	0.70	6.30	1.21	0.12	0.13	0.27	0.52	0.60	0.50

Table S3. Binary matrix of 23 external morphological character of *Leptodactylus* species used in ANOSIM and NMDS analysis. Lca = *L. caatingae*; Lcu = *L. cunicularius*; Lel = *L. elenae*; Lfr = *L. furnarius*; Lfs = *L. fuscus*; Lgr = *L. gracilis*; Ljo = *L. jolyi*; Lls = *L. latinasus*; Llg = *L. longirostris*; Lys = *L. mystacinus*; Lnk = *L. notoaktites*; Lpa = *L. plaumanni* (AR); Lpb = *L. plaumanni* (BR); Lpc = *L. poecilochilus*; Lsx = *L. spixi*; Lin = *L. insularum*; Llr = *L. latrans*; Lmc = *L. macrosternum*; Lsv = *L. silvanimbus*; Lme = *L. melanonotus*; Lpd = *L. podicipinus*; Lps = *L. pustulatus*; Lkn = *L. knudseni*; Llb = *L. labyrinthicus*; Lpt = *L. pentadactylus*; Lrh = *L. rhodonotus*; Lsv = *L. savagei*; Lvs = *L. vastus.*

	Species groups																											
	fuscus																***latrans***			***melanonotus***				***pentadactylus***				
	Lca	**Lcu**	**Lel**	**Lfr**	**Lfs**	**Lgr**	**Ljo**	**Lls**	**Llg**	**Lys**	**Lnk**	**Lpa**	**Lpb**	**Lpc**	**Lsx**	**Lin**	**Llr**	**Lmc**	**Lsv**	**Lme**	**Lpd**	**Lps**	**Lkn**	**Llb**	**Lpt**	**Lrh**	**Lsv**	**Lvs**
Body globular in lateral view	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0
Body globular/depressed in lateral view	1	1	1	1	1	1	0	1	1	1	1	1	0	0	1	0	1	1	0	0	1	1	1	1	1	1	1	1
Total length short	0	0	1	1	1	1	0	1	1	0	1	1	0	0	1	0	0	0	0	1	1	1	0	0	0	0	0	0
Total length intermediate	1	1	0	0	0	0	1	0	0	1	0	0	1	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0
Total length long	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	1	1	1
Body small	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
Body intermediate	0	0	0	1	1	0	0	0	1	1	0	1	0	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1
Body large	1	1	1	0	0	1	1	1	0	0	1	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
Tail short	1	1	1	1	1	1	1	1	1	0	1	0	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0
Tail length intermediate	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1	1	1	1	1	0	0	0	0	0	0	1	1	0
Tail length long	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1
Body low	1	0	1	1	1	1	0	1	1	1	1	1	0	1	1	1	0	0	0	1	1	1	1	1	0	0	0	1
Body high	0	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	1	1	0	0	0	0	0	1	1	1	0
Tail low	0	1	0	1	0	1	0	0	0	1	0	0	0	1	1	1	1	1	1	0	0	0	1	1	1	1	1	0
Tail high	1	0	1	0	1	0	1	1	1	0	1	1	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1
Snout rounded in lateral view	1	1	1	1	0	1	0	0	1	0	0	1	0	0	0	1	1	1	1	1	0	1	1	1	1	1	1	1
Snout sloping in lateral view	0	0	0	0	1	0	1	1	0	1	1	0	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0
Eyes small	0	0	1	0	0	0	0	0	0	1	0	0	1	1	0	1	1	0	0	0	0	0	0	1	0	0	1	0
Eyes intermediate	1	1	0	1	1	1	1	0	1	0	0	1	0	0	1	0	0	1	1	0	0	0	1	0	1	1	0	1
Eyes large	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0
Eye dorsal positioned	1	1	1	1	1	0	1	0	1	0	0	1	1	1	0	0	1	1	1	0	1	0	1	1	1	1	1	0
Eye dorsolateral positioned	0	0	0	0	0	1	0	1	0	1	1	0	0	0	1	1	0	0	0	1	0	1	0	0	0	0	0	1

Spiracle wide	1	1	1	1	1	1	0	1	1	0	1	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	1
Spiracle narrow	0	0	0	0	0	0	1	0	0	1	0	0	1	1	1	0	1	1	0	1	1	0	1	1	1	1	1	0
Spiracle short	1	1	1	0	1	0	1	1	0	0	1	1	0	0	1	1	0	1	1	0	1	1	0	0	0	0	0	0
Spiracle long	0	0	0	1	0	1	0	0	1	1	0	0	1	1	0	0	1	0	0	1	0	0	1	1	1	1	1	1
Spiracle positioned in the beginning of body	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Spiracle positioned in the middle of body	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	1	1	1	1	1	0	1	1	1	1
Spiracle positioned in the posterior end of body	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0
Spiracle posterodorsal directed	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	1	1	1	1	1	1
Spiracle posterolateral directed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0
Dorsal fin wide arc shaped	0	0	1	0	0	0	0	0	0	1	0	0	1	1	0	1	0	0	0	1	0	0	0	0	0	1	1	0
Dorsal fin arc shaped	1	1	0	1	1	1	1	1	1	0	1	1	0	0	1	0	0	1	1	0	0	1	0	0	1	0	0	1
Dorsal fin parallel shaped	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1	0	0	0	0
Dorsal fin low	1	1	0	1	0	1	1	1	1	1	0	1	1	1	1	1	0	1	1	0	1	0	1	1	1	1	1	1
Dorsal fin intermediate	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0
Ventral fin wide arc shaped	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Ventral fin arc shaped	0	1	1	1	0	1	1	0	0	0	1	1	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0
Ventral fin parallel shaped	1	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
Ventral fin low	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
Ventral fin intermediate	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Ventral fin high	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Muscle tail low	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	0	1	1	1	1	0	0	0	0	1	0
Muscle tail high	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	1	1	1	1	0	1
Emargination of oral disc absent	1	1	0	1	1	1	0	1	1	1	0	1	0	1	1	1	0	0	1	1	0	0	0	0	0	1	1	1

Emargination of oral disc ventral	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Emargination of oral disc ventrolateral	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
Oral disc terminal positioned	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	1	0	1	1	0	0	0	0
Oral disc anteroventral positioned	0	0	0	0	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0
Lower jaw sheath U shaped	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0
Lower jaw sheath V shaped	0	0	1	0	0	1	0	1	0	0	0	0	0	1	1	1	0	0	0	0	0	1	0	0	0	0	0	1
Tooth row formula 1/2(1)	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Tooth row formula 1/3(1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
Tooth row formula 2(2)/3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0
Tooth row formula 2(2)/3(1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	1
Tooth row formula 2/3	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	1	1	0	0	0	0	0
Tooth row formula 2(2)/2(1-2)	0	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	0	1	1	0	1	0	0	1	1	1	1	1

Table S4. Binary matrix of 15 internal oral morphology characters provide by Miranda et al. (2014)of *Leptodactylus* species used in ANOSIM and NMDS analysis. Lbf = *L. bufonius*; Lcq = *L. camaquara*; Lfr = *L. furnarius*; Lfs = *L. fuscus*; Lgr = *L. gracilis*; Lls = *L. latinasus*;; Lys = *L. mystacinus*; Lnk = *L. notoaktites*; Lpa = *L. plaumanni* (AR); Lpb = *L. plaumanni* (BR); Lsx = *L. spixi*; Ltt = *L. tapiti*; Lty = *L. troglodytes*; Lcs = *L. chaquensis*; Llr = *L. latrans*; Lnt = *L. natalensis*; Lsi = *L. petersii*; Lpd = *L. podicipinus*; Lps = *L. pustulatus*; Lrv = *L. riveroi*; Lkn = *L. knudseni*; Llb = *L. labyrinthicus*; Lrx = *L. rhodomystax*; Lvs = *L. vastus*. Numbers under abbreviations represents different populations (*sensu* Miranda et al. 2014). NIP = number of infralabial papillae; SIP = shape of infralabial lateral papillae; NLP = number of lingual papillae; BFA = shape of the buccal floor arena; NPU = number of pustules in the buccal floor arena; PBF = number of papillae (on each side) delimiting the buccal floor arena; SPB = size of papillae of buccal floor arena (≠ "different" or = "equal"); PVV = number of projections on posterior margin of ventral velum (on each side of the glottis); PPN = projections of pre-nasal arena; PNP = number of post nasal papillae (per side); SMR = shape of median ridge; LRP = size of lateral ridge of median papillae; LMR = shape of lateral papillae of median ridge; BRA = shape the buccal roof arena; PBR = number of papillae limiting the buccal roof arena (per side).

	Species groups																																
	fuscus															***latrans***									***melanonotus***						***pentadactylus***		
	Lbf	**Lcq**	**Lfr**	**Lfs 1**	**Lfs 2**	**Lgr**	**Lls 1**	**Lls 2**	**Lys 1**	**Lys 2**	**Lnk**	**Lpa**	**Lpb**	**Lsx**	**Ltt**	**Lty 1**	**Lty 2**	**Lcs 1**	**Lcs 2**	**Lcs 3**	**Llr 1**	**Llr 2**	**Llr 3**	**Llr 4**	**Lnt**	**Lsi**	**Lpd1**	**Lpd 2**	**Lps**	**Lrv**	**Lkn**	**Llb**	**Lrx**	**Lvs**
NIP=3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0	1	1	1	1	0	0	0	0	0
NIP=4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	0	0	0	0	1	1	1	1	1
NIP=5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SIP conical	1	1	0	0	1	0	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	0	0	0	0
SIP quadrangular	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
SIP triangular	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
SIP undefined	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0
NLP=0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0
NLP=1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
NLP=2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
NLP=3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	0	0	0	1	1	0	0
NLP=4	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
BFA triangular	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0
BFA trapezoidal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
BFA circular	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
NPU -15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NPU 15-30	1	1	0	0	1	0	0	0	0	1	1	0	0	1	1	0	1	0	0	0	1	1	0	0	1	1	1	1	1	1	0	0	1	0
NPU >30	0	0	1	1	0	1	1	1	1	0	0	1	1	0	0	1	0	1	1	0	0	0	1	1	0	0	0	0	0	0	1	1	0	1
PBF -5	1	0	0	1	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
PBF 5-10	0	1	1	0	0	1	0	0	1	1	1	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	1	1	0	1	1	1	0	1
PBF >10	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	1	0	0	0	0	0
SPB “≠”	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
SPB “=”	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PVV -5	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	0	1	1	1	1	1	1	0
PVV >5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0	0	0	1
PVV unknown	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PPN pustules	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
PPN ridge	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
PNP=1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	0	0	1	1	1	1
PNP=2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	1	0	0	0	0	0
PNP=3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
SMR triangular	1	1	1	1	0	1	0	0	1	1	0	1	1	1	1	1	0	1	1	1	0	0	1	1	0	0	1	1	1	0	0	0	0	0
SMR semicircular	0	0	0	0	1	0	1	1	0	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	0	0	0	1	1	1	0
SMR quadrangular	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1
LRP small	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
LRP large	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0
LMR triangular	0	0	0	0	1	1	1	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0
LMR conical	0	1	1	1	0	1	0	0	1	1	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	1	1
LMR chela	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
LMR quadrangular	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LMR undefined	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	0	0	0	0	0
BRA undefined	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1
BRA triangular	0	1	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	1	0

BRA quadrangular	0	0	1	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRA oval	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
BRA rounded	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
BRA trapezoidal	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
PBR absent	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
PBR -5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	1
PBR 5-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	1	1	0	0	0	0	0	0
PBR >10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	1	0	0	0	0	0