Supplementary Information:
Zoological Studies
Title: First Description of female and larva of *Phyllocycla basidenta* Dunkle, 1987 (Anisoptera: Gomphidae), and Ecological Niche Modeling of *Phyllocycla* species in Northwestern Argentina
Authors: Carlos Molineri, José S. Rodríguez and Carolina Nieto

Studied material. *Phyllocycla argentina*, in alcohol: 2 male (IBN-O-2816 & 2817) and 1 female (IBN-O-2819) adults (reared, with larval exuviae) from Argentina, Jujuy, Dpto. Ledesma, 2 km SW de Caimancito, río Zora, S23.77331°, W64.61330°, 11.xi.2023, C. Molineri & J. Rodríguez cols.; 1 male adult (IBN-O-2814), same data; 4 larvae, same data (IBN-O-2809); 1 female (reared, with larval exuvia, IBN-O-2822) from Tucumán, Trancas, Arroyo Pozo del Pescado, S 26.19055°, W 65.28389°, 788 m, J. Rodríguez col.; 1 female (IBN-O-326) (reared, with larval exuvia) from Argentina, Santiago del Estero, Dpto. Pellegrini, Río Urueña, S 26.23308°, W 64.46843°, 400 m, E. Pero col.; 1 female adult (reared with larval exuvia, IBN-O-326) from Santiago del Estero, El Remate, río Urueña, S 26.23308°, W 64.46843°, 400 m, 11.xi.2014, E. Pero col.; 7 larvae (IBN-O-2811) from Santiago del Estero, El Remate, río Urueña, S 26.23385°, W 64.46991°, 400 m, 24.x.2022, C. Molineri, J. Rodríguez & G. Fontanarrosa cols.; 1 larva from Jujuy, Viñalito, Finca la Lucrecia, arroyo sin nombre en escuela, S 23.73130, W 64.54000, 360 m, E. Dominguez & C. Molineri cols. (IBN-O-41); 1 larva Salta, Dpto. Orán, Pichanal, río Santa María, S 23.27751, W 64.32571, 330 m, 19.xi.2014, D. Gomez col.; 2 larvae from Tucumán, Trancas, Arroyo Pozo del Pescado, S 26.19055°, W 65.28389°, 788 m, 17.xii.2016, C. Molineri & J. Rodríguez cols.; 3 larvae from Tucumán, río Chico S 27.527248, W-65.262820, 22.x.2014, J.S. Rodríguez col.; 1 larva (IBN-O-2463) same data except: 302 m, 1.xii.2016, C. Molineri & J. Rodríguez cols.; 1 larva from Tucumán, Simoca, río Balderrama, S27.180066, W 65.356961, 1.xii.2016, G. Hankel, C. Molineri y J.S. Rodríguez cols; 4 larvae from Tucumán, Acheral, RP 38, río Aranillas, S 27.11667, W 65.46222, 366 m, 28.vii.2006, C. Molineri col. (IBN-O-42); 11 larvae from Tucumán, Trancas, El Boyero, S 26.23222, W 26.23222, 756 m, 17.xii.2016, C. Molineri & J.S. Rodríguez cols. Adults in envelopes: 2 males (IBN-O-3, IBN-O-6) and 1 female (IBN-O-4)

from Argentina, Jujuy, Dpto. Ledesma, ca. Caimancito, río Zora por ruta interna, S 23.77222, W 64.61250, 385 m, 17.ii.2014, E. Dominguez y C. Molineri cols.; 1 male (IBN-O-2) and 1 female (IBN-O-28) same locality except S 23.77331, W 64.61155, 367 m, 17.i.2014, D. Gomez, J. Rodriguez y C. Molineri cols.; 1 male (IBN-O-5) from Jujuy, Dpto. Ledesma, PN Calilegua, río Sauzalito, S 23.66277, W 64.57416, 430 m, 16.xi.2014, E. Dominguez y C. Molineri cols.; 1 female (IBN-O-122) from Salta, Dpto. Orán, Pichanal, río Santa María, S 23.27751, W 64.32571, 330 m, 18.i.2014, J.S. Rodríguez col.; 1 female (IBN-O-25) same data except: 19.i.2014, D. Gomez y C. Molineri; 1 female adult from Tucumán, Capital, calle José Garmendia 442, S26.84201, W 65.18083, 427 m, 1.1.2017, J.S. Rodríguez col. (IBN-O-65).

Phyllocycla basidenta, in alcohol: 2 male (IBN-O-2820 & 2821) and 1 female (IBN-O-2818) adults (reared, with larval exuviae) from Argentina, Jujuy, Dpto. Ledesma, 2 km SW de Caimancito, Río Zora, S 23.77331°, W 64.61330°, 11.xi.2023, C. Molineri & J. Rodríguez cols.; 3 larvae, same data (IBN-O-2810); 3 larva except: 7.viii.2013, D. Gómez col.; 4 larva same data except: 6.viii.2013, D. Gómez col.; 1 female (reared, with larval exuvia, IBN-O-2815) from Tucumán, Simoca, Manuela Pedraza, río Balderrama, 1.xii.2016, S 27.17917°, W 65.35983°, 330 m, C. Molineri, J. Rodríguez & G. Hankel cols.; 12 larvae (IBN-O-2812) from Jujuy, Libertador San Martin, río San Francisco, toma de agua ca. Caimancito, -23.706621, -64.521288, 387 m, 1.iv.2024, C. Molineri & J. Rodríguez col.; 4 larvae from Jujuy, Termas de Caimancito, arroyo termal, S 23.74397, W 64.51883, 18.ii.2004, E. Dominguez col.; 2 larvae from Jujuy, Calilegua, Sauzalito, Arroyo nº 3 (abajo), S23.63556, W 64.58478, 10.xi.2023, C. Molineri & J.S. Rodríguez cols.; 4 larvae from Salta, Orán, Ingenio Tabacal, río Santa María (1), S 23.26667, W 64.31667, 27-29.xii.2015, D. Gómez col; 3 larvae same data except río Santa María (2), S23.2500, W 64.46667, 24-26.xii.2015, D. Gómez col.; 1 larva from Tucumán, río Balderrama, S 27.15245, W 65.49561, 350 m, 4.v.2006, C. Molineri col. (IBN-O-44); 4 larvae same data except: S 27.180066, W 65.356961, 1.xii.2016, G. Hankel, C. Molineri & J.S. Rodríguez; 2 larvae (IBN-O-2937) from Tucumán, Trancas, El Boyero, Arroyo Pozo del Pescado, S 26.23222, W 65.25889, 756 m, 17.xii.2016, C. Molineri & J.S. Rodríguez cols.; 5 larvae from Tucumán, Acheral, río Aranillas, 366 m, S 27.11667, W 65.46222, 366 m, 30.vii.2018, J.S. Rodríguez col.; 1 larval exuvia (IBN-O-2463) from Tucumán, río Chico S

27.527248, W-65.262820, 302 m, 1.xii.2016, C. Molineri & J. Rodríguez cols.; 7 larvae from Jujuy, Lib. Gral. San Martín, río Ledesma, S 23.93333, W 64.9500, 8-10.xii.2015, D. Gómez col.; 1 larva from Jujuy, Ledesma, río Los Berros, S 23.73333, W 64.66667, 17.i.2013, C. Molineri col.; 1 larva (IBN-O-43) from Jujuy, Ledesma, río Los Berros, S 23.746335, W 64.6670, 393 m, 8.vi.2006, C. Molineri col; 1 larva from Jujuy, PN Calilegua, río Sauzalito, Pozo 17, S 23.61667, W 64.58333, 5.xii.2015, D. Gómez. Bolivia: 2 larvae (IBN-O-2813) from Tarija, Prov. O´Connor, ca. Entre Rios, río Salinas, S 21.64513, W 64.15227, 1160m, 6.x.2004, Molineri C. & Manzo V. cols.; 1 larva from Dpto. Tarija, Prov. O´Connor, río Saican, ca. Entre Ríos, S21.77458, W64.0900, 1000 m, 6.x.2004, Molineri C. & Manzo V. cols. Adults in envelopes: 7 males (IBN-O-7, IBN-O-34 to 39) from Argentina, Jujuy, Dpto. Ledesma, aprox. 20 km al W por camino a F. Yuchán, S 23.94940, W 64.92846, 700 m, 29.i.2013, J. Rodríguez col.; 1 male (IBN-O-33) from Jujuy, Dpto. Ledesma, PN Calilegua, río Sauzalito, S 23.62370, W 64.58701, 500 m, 2.ii.2013, J. Rodríguez col., 1 male (IBN-O-27) from Jujuy, Dpto. Ledesma, Fraile Pintado, río Colorado, S 23.97333, W 64.92694, 690 m, 15.i.2013, D. Gomez, C. Molineri y J.S. Rodriguez cols.; 4 female adults (IBN-O-29 to 32) from Jujuy, Depto. Ledesma, Fraile Pintado, río Ledesma, S 23.94671, W 64.96396, 700 m, 29.i.2013, J.S. Rodríguez col.; 1 female adult (IBN-O-26) from Jujuy, Depto. Ledesma, PN Calilegua, RP 34, arroyo Yuto, S 23.64444, W 64.53917, 430 m, 2.vi.2000, C. Molineri col.

Phyllocycla viridipleuris: 1 male adult (IBN-O-1115, HW 27 mm) from Argentina, Corrientes, Itá Ibaté, arroyo Santa Lucía, S 27.51318°, W 57.23370, 70 m, 9.xi.2021, C. Molineri & G. Fontanarrosa cols.

Table S1. Model performance of candidate models according to regularizationmultiplier (RM) and feature classes (FC, l: linear, q: quadratic, p: product, t: threshold, h: hinge). The selection criteria were partial ROC (pROC), omission rate and AIC. The chosen model is highlighted.

P. basidenta

RM	FC	Mean AUC ratio	Pval pROC	Omission rate at 5%	AICc	delta AICc	W AICc	Number of parameters
0.1	l	1.9233560750606	0	0.1	459.396969844921	15.1280044188438	1.08081073111207e-05	9
0.1	q	1.93500777866366	0	0.1	467.360509227164	23.0915438010867	2.05888568058631e-07	11
0.1	p	1.93556342442076	0	0.1	NA	NA	NA	23
0.1	t	1.98721376322746	0	0.7	NA	NA	NA	77
0.1	h	1.9800332441507	0	0.6	NA	NA	NA	94
0.1	lq	1.94683704867312	0	0.1	1124.67014318351	680.401177757433	3.89043970308081e-150	18
0.1	lp	1.93149942884558	0	0.1	NA	NA	NA	27
0.1	lt	1.99803477802118	0	0.7	NA	NA	NA	79
0.1	lh	1.97856802113029	0	0.6	NA	NA	NA	94
0.1	qp	1.93707421257272	0	0.1	NA	NA	NA	24
0.1	qt	1.99792411112878	0	0.7	NA	NA	NA	80
0.1	qh	1.97789315944772	0	0.6	NA	NA	NA	94
0.1	pt	1.99786471026304	0	0.7	NA	NA	NA	79
0.1	ph	1.97942178331711	0	0.6	NA	NA	NA	99
0.1	th	1.99714107658498	0	0.7	NA	NA	NA	84
0.1	lqp	1.9367516590951	0	0.1	NA	NA	NA	28
0.1	lqt	1.99795508283876	0	0.7	NA	NA	NA	79
0.1	lqh	1.97833393843559	0	0.6	NA	NA	NA	99
0.1	lpt	1.99826708572771	0	0.7	NA	NA	NA	79
0.1	lph	1.97950882029449	0	0.6	NA	NA	NA	94
0.1	lth	1.99712634575062	0	0.7	NA	NA	NA	84
0.1	qpt	1.99790097197297	0	0.7	NA	NA	NA	79
0.1	qph	1.97690059092877	0	0.6	NA	NA	NA	104
0.1	qth	1.99732427170087	0	0.7	NA	NA	NA	84
0.1	pth	1.99720179565488	0	0.7	NA	NA	NA	84
0.1	lqpt	1.99780461776825	0	0.7	NA	NA	NA	79
0.1	lqph	1.97655906618345	0	0.6	NA	NA	NA	104
0.1	lqth	1.99661586996973	0	0.7	NA	NA	NA	84
0.1	lpth	1.99714358180738	0	0.7	NA	NA	NA	84
0.1	qpth	1.99729406227702	0	0.7	NA	NA	NA	84
0.1	lqpth	1.99748538813424	0	0.7	NA	NA	NA	84
0.5	l	1.75388327757302	0	0.1	455.471811304728	11.2028458786498	8.20502062752166e-05	7
0.5	q	1.91374011215084	0	0.1	451.669415658096	7.40045023201787	0.000561402613254593	8
0.5	p	1.73390646256691	0	0.1	446.664689869479	2.39572444340126	0.006965921274477	6
0.5	t	1.94108673856537	0	0.4	NA	NA	NA	31
0.5	h	1.96585507203596	0	0.1	NA	NA	NA	72

0.5	lq	1.91989388851096	0	0.1	450.224671341481	5.95570591540309	0.00120103793871398	8
0.5	lp	1.77305198072802	0	0.1	446.647937829639	2.37897240356091	0.00730166466290731	6
0.5	lt	1.9422087815746	0	0.2	NA	NA	NA	35
0.5	lh	1.96332782349271	0	0.1	NA	NA	NA	35
0.5	qp	1.77528698883817	0	0.1	449.314397835192	5.04543240911397	0.0019683258204476	7
0.5	qt	1.94386434626055	0	0.2	NA	NA	NA	35
0.5	qh	1.96604487170725	0	0.1	NA	NA	NA	31
0.5	pt	1.94490833847707	0	0.5	NA	NA	NA	35
0.5	ph	1.96371606458508	0	0.1	NA	NA	NA	52
0.5	th	1.94474132099738	0	0.6	NA	NA	NA	50
0.5	lqp	1.72275562416396	0	0.1	455.081194059058	10.8122286329802	0.000112873031535103	8
0.5	lqt	1.94418994758191	0	0.2	NA	NA	NA	35
0.5	lqh	1.967276256692	0	0.1	NA	NA	NA	36
0.5	lpt	1.94320825945074	0	0.5	NA	NA	NA	36
0.5	lph	1.96463359183577	0	0.1	NA	NA	NA	53
0.5	lth	1.94444101997715	0	0.6	NA	NA	NA	46
0.5	qpt	1.94223653217351	0	0.5	NA	NA	NA	35
0.5	qph	1.96380338473455	0	0.1	NA	NA	NA	51
0.5	qth	1.940507777307	0	0.6	NA	NA	NA	40
0.5	pth	1.94484456084883	0	0.6	NA	NA	NA	46
0.5	lqpt	1.94036321651579	0	0.5	NA	NA	NA	35
0.5	lqph	1.96447936665885	0	0.1	NA	NA	NA	50
0.5	lqth	1.94270546255788	0	0.6	NA	NA	NA	41
0.5	lpth	1.94285941757493	0	0.6	NA	NA	NA	48
0.5	qpth	1.94435488799359	0	0.6	NA	NA	NA	45
0.5	lqpth	1.94449932791493	0	0.6	NA	NA	NA	48
1	l	1.76806061533189	0	0.1	458.451311062446	14.1823456363684	2.14698408042789e-05	7
1	q	1.7363989895732	0	0.1	452.267733413142	7.99876798706396	0.000484968259440657	7
1	p	1.66522712995122	0	0.1	448.280021584998	4.01105615892055	0.00364498017451893	5
1	t	1.95322398519482	0	0.1	525.403242938995	81.1342775129177	6.7069384238433e-20	15
1	h	1.83596331253724	0	0.1	NA	NA	NA	47
1	lq	1.78264409930983	0	0.1	450.974772647629	6.70580722155165	0.0010006610936406	7
1	lp	1.70083874921793	0	0.1	452.455584492839	8.1866190667613	0.000491047398645357	6
1	lt	1.7130314868011	0	0.2	715.362088507862	271.093123081785	4.11789846918544e-61	17
1	lh	1.83632557319427	0	0.1	740.808310424316	296.539344998239	1.26611311736095e-66	17
1	qp	1.70124192012358	0	0.1	451.415006877332	7.14604145125429	0.000905389076420303	6
1	qt	1.81048280846676	0	0.2	588.587560462632	144.318595036554	1.52908683305895e-33	16
1	qh	1.83562419906132	0	0.1	613.667215931342	169.398250505264	5.66467871913502e-39	16
1	pt	1.7108595594172	0	0.2	715.722896602736	271.453931176658	4.04858706307085e-61	17
1	ph	1.79431907371464	0	0.1	NA	NA	NA	36
1	th	1.79532167255719	0	0.2	NA	NA	NA	30
1	lqp	1.71523936566197	0	0.1	451.399839054573	7.1308736284949	0.00104631707875058	6
1	lqt	1.76439604092276	0	0.2	525.23735400561	80.9683885795322	1.00559003819803e-19	15

1	lqh	1.83650857769044	0	0.1	511.907773927742	67.6388085016643	8.20189325102478e-17	14
1	lpt	1.76029220829671	0	0.2	1095.71593784172	651.446972415646	1.44306969098419e-143	18
1	lph	1.80016094303613	0	0.1	NA	NA	NA	27
1	lth	1.80356652681246	0	0.2	NA	NA	NA	25
1	qpt	1.77822432192231	0	0.2	715.417984964301	271.149019538224	5.73319003514443e-61	17
1	qph	1.78930108429232	0	0.1	NA	NA	NA	33
1	qth	1.78573648284367	0	0.2	NA	NA	NA	19
1	pth	1.82073786499949	0	0.2	NA	NA	NA	27
1	lqpt	1.68257956479542	0	0.2	715.407670333831	271.138704907754	6.02439420180832e-61	17
1	lqph	1.81153018683991	0	0.1	NA	NA	NA	30
1	lqth	1.79999126388238	0	0.2	NA	NA	NA	21
1	lpth	1.81805020256249	0	0.2	NA	NA	NA	27
1	qpth	1.78980340050282	0	0.2	NA	NA	NA	27
1	lqpth	1.82292985061464	0	0.2	NA	NA	NA	27
2	l	1.72740330794946	0	0.1	456.6726393284	12.4036739023222	9.63035956379885e-05	5
2	q	1.67664708346379	0	0.1	458.254661252044	13.9856958259667	4.58399880940002e-05	7
2	p	1.71709339014484	0	0.1	454.595149106507	10.3261836804297	0.000300609556119158	4
2	t	1.54292319563381	0	0.2	444.268965426078	0	0.0525176250342751	9
2	h	1.75125785776881	0	0.1	NA	NA	NA	33
2	lq	1.71231504899148	0	0.1	456.75794011789	12.4889746918128	0.00010758229795052	7
2	lp	1.73248045400031	0	0.1	458.214531812885	13.9455663868074	5.49774433790118e-05	5
2	lt	1.71075273555478	0	0.1	465.708845671081	21.4398802450031	1.37744120496268e-06	11
2	lh	1.70371260233469	0	0.1	460.599920764637	16.3309553385597	1.8897437217333e-05	10
2	qp	1.69591835863737	0	0.1	453.976045662618	9.70708023653992	0.000555123507718203	4
2	qt	1.69574641777727	0	0.1	460.430589124652	16.1616236985748	2.37057441669708e-05	11
2	qh	1.74293057742247	0	0.1	458.604033338827	14.3350679127491	6.39843638488463e-05	10
2	pt	1.68190147149188	0	0.1	448.463358626939	4.19439320086167	0.0109877581496482	9
2	ph	1.70737341247292	0	0.1	NA	NA	NA	26
2	th	1.73054221595627	0	0.1	NA	NA	NA	25
2	lqp	1.69931750022234	0	0.1	453.960889863337	9.69192443725967	0.000771807458418934	4
2	lqt	1.69685146153842	0	0.1	460.241646542795	15.9726811167174	3.70280328584835e-05	11
2	lqh	1.75369349835485	0	0.1	458.18963796049	13.9206725344119	0.000115913190858776	10
2	lpt	1.70557320175983	0	0.1	448.478810756708	4.20984533062995	0.0166762671499895	9
2	lph	1.76785466490395	0	0.1	NA	NA	NA	28
2	lth	1.74291543387198	0	0.1	743.487986976082	299.219021550005	1.68106898994039e-66	17
2	qpt	1.70924694220411	0	0.1	448.226141804333	3.95717637825527	0.025391209367892	9
2	qph	1.71830833344791	0	0.1	NA	NA	NA	22
2	qth	1.74838799239155	0	0.1	553.655455071446	109.386489645368	3.97299973177391e-25	15
2	pth	1.72494189574232	0	0.1	NA	NA	NA	25
2	lqpt	1.71162601484167	0	0.1	448.226141966742	3.95717654066436	0.0385822395036307	9
2	lqph	1.69489128536223	0	0.1	NA	NA	NA	21
2	lqth	1.75368274751504	0	0.1	617.013181759282	172.744216333205	1.19354966832383e-38	16
2	lpth	1.76561541125681	0	0.1	NA	NA	NA	25
2	qpth	1.72458115206388	0	0.1	NA	NA	NA	25
2	lqpth	1.73460658470058	0	0.1	NA	NA	NA	25

P. argentina

RM	FC	Mean AUC ratio	Pval pROC	Omission rate at 5%	AICc	Delta AICc	W AICc	number of parameters
0.1	l	1.85703226063693	0	0	347.333347281325	3.49621236116889	0.00237930283754934	6
0.1	q	1.86530607172593	0	0	347.553369865603	3.7162349454469	0.00215630879153815	6
0.1	p	1.8568363822192	0	0	352.828273968656	8.99113904849906	0.000156407791654677	7
0.1	t	1.9996503841084	0	0.5	NA	NA	NA	58
0.1	h	1.97956654787904	0	0.375	NA	NA	NA	90
0.1	lq	1.8538575544039	0	0	351.808899372127	7.97176445197096	0.000264015074583226	7
0.1	lp	1.86161636172777	0	0	363.254278852081	19.4171439319246	8.76016996216314e-07	8
0.1	lt	1.99961050347381	0	0.5	NA	NA	NA	62
0.1	lh	1.98214897585423	0	0.375	NA	NA	NA	90
0.1	qp	1.84129294958902	0	0	363.075839286223	19.2387043660669	9.71777439744249e-07	8
0.1	qt	1.99959243092975	0	0.5	NA	NA	NA	64
0.1	qh	1.981901577572	0	0.375	NA	NA	NA	90
0.1	pt	1.99958400345502	0	0.5	NA	NA	NA	61
0.1	ph	1.97912909529061	0	0.375	NA	NA	NA	90
0.1	th	1.99904533662701	0	0.5	NA	NA	NA	69
0.1	lqp	1.84492602507043	0	0	362.982780718243	19.1456457980869	1.03317468660332e-06	8
0.1	lqt	1.99960068633635	0	0.5	NA	NA	NA	64
0.1	lqh	1.98397313616914	0	0.375	NA	NA	NA	90
0.1	lpt	1.99961623853145	0	0.5	NA	NA	NA	63
0.1	lph	1.97945222684333	0	0.375	NA	NA	NA	90
0.1	lth	1.99905627306701	0	0.5	NA	NA	NA	69
0.1	qpt	1.99961171990401	0	0.5	NA	NA	NA	62
0.1	qph	1.97818329098448	0	0.375	NA	NA	NA	90
0.1	qth	1.99906434995016	0	0.375	NA	NA	NA	69
0.1	pth	1.99884126750935	0	0.5	NA	NA	NA	69
0.1	lqpt	1.99961050346247	0	0.5	NA	NA	NA	62
0.1	lqph	1.97878109800605	0	0.375	NA	NA	NA	90
0.1	lqth	1.9990156351047	0	0.5	NA	NA	NA	69
0.1	lpth	1.99897288586687	0	0.5	NA	NA	NA	69
0.1	qpth	1.99903118049075	0	0.5	NA	NA	NA	69
0.1	lqpth	1.99906591447578	0	0.5	NA	NA	NA	69
0.5	l	1.80303887906216	0	0	350.001274161906	6.16413924174918	0.000690665455122026	4
0.5	q	1.8267966601189	0	0	343.837134920156	0	0.0150589109011383	3
0.5	p	1.72558247438477	0	0	350.208963635002	6.37182871484521	0.000631660717952867	4
0.5	t	1.92195556582275	0	0.125	NA	NA	NA	15
0.5	h	1.74304953376622	0	0	NA	NA	NA	55
0.5	lq	1.84329648447351	0	0	345.760804149893	1.9236692297365	0.00589533593281144	4

0.5	lp	1.72228772559052	0	0	354.754423245386	10.9172883252299	6.67254091965623e-05	5
0.5	lt	1.92824408866591	0	0.25	NA	NA	NA	17
0.5	lh	1.744814382368	0	0	NA	NA	NA	26
0.5	qp	1.72128555745394	0	0	354.520840747318	10.6837058271614	7.61793642784586e-05	5
0.5	qt	1.9346156776443	0	0.125	NA	NA	NA	19
0.5	qh	1.75616078239133	0	0.125	NA	NA	NA	27
0.5	pt	1.91264822106318	0	0.25	NA	NA	NA	15
0.5	ph	1.70635678303358	0	0	NA	NA	NA	40
0.5	th	1.88398245975162	0	0.25	NA	NA	NA	28
0.5	lqp	1.74383443332191	0	0	354.504954848814	10.6678199286575	7.8022508036165e-05	5
0.5	lqt	1.92857453378073	0	0.25	NA	NA	NA	19
0.5	lqh	1.75083399752908	0	0.125	NA	NA	NA	26
0.5	lpt	1.92560522837098	0	0.25	NA	NA	NA	15
0.5	lph	1.72631141068062	0	0	NA	NA	NA	40
0.5	lth	1.88545102379466	0	0.25	NA	NA	NA	27
0.5	qpt	1.91986701767829	0	0.25	NA	NA	NA	17
0.5	qph	1.73022432768572	0	0	NA	NA	NA	40
0.5	qth	1.88134630205335	0	0.25	NA	NA	NA	30
0.5	pth	1.88492189803695	0	0.25	NA	NA	NA	25
0.5	lqpt	1.92929537066453	0	0.25	NA	NA	NA	17
0.5	lqph	1.71462617887359	0	0	NA	NA	NA	40
0.5	lqth	1.87341591204365	0	0.25	NA	NA	NA	29
0.5	lpth	1.88899334987038	0	0.25	NA	NA	NA	25
0.5	qpth	1.8978448889714	0	0.25	NA	NA	NA	24
0.5	lqpth	1.89070757851535	0	0.25	NA	NA	NA	24
1	l	1.63115585632336	0	0	356.365231403229	12.5280964830727	3.12847217577136e-05	4
1	q	1.70067601920868	0	0	352.055687274376	8.2185523542197	0.000274293664909754	4
1	p	1.64062643591726	0	0	356.717664527901	12.8805296077443	2.71134487798814e-05	3
1	t	1.79837824107544	0	0	349.704574565394	5.86743964523777	0.000918544536588921	7
1	h	1.57125062304616	0	0	NA	NA	NA	31
1	lq	1.73491750061262	0	0	350.965804497188	7.12866957703108	0.000497251096299339	4
1	lp	1.72329584739198	0	0	352.404869674186	8.56773475402906	0.0002464189171483	3
1	lt	1.82054854702216	0	0	353.076594893103	9.23945997294686	0.00017929331152439	7
1	lh	1.74374491165379	0	0	354.073517631163	10.2363827110066	0.00011092015121689	5
1	qp	1.73479622518931	0	0	352.174287437615	8.33715251745804	0.000292023628953851	3
1	qt	1.83367791292421	0	0	362.732411795277	18.8952768751207	1.51713383231776e-06	8
1	qh	1.76605006488034	0	0	366.261306154957	22.4241712348009	2.64953053223485e-07	7
1	pt	1.87226592460067	0	0	360.501078958485	16.6639440383287	4.81488781547589e-06	8
1	ph	1.63740703933131	0	0	NA	NA	NA	14
1	th	1.85075132376701	0	0	345.051480528033	1.21434560787691	0.0110000782699843	6
1	lqp	1.72825422479803	0	0	352.174287409287	8.3371524891304	0.00031872534402639	3
1	lqt	1.8627364963572	0	0	362.292365920816	18.4552310006595	2.06700480669818e-06	8
1	lqh	1.74080212860415	0	0	358.380437856166	14.5433029360098	1.49289789883021e-05	6

1	lpt	1.89664955240222	0	0	360.500276734371	16.663141814215	5.28617681682537e-06	8
1	lph	1.6590789310281	0	0	520.343235452553	176.506100532396	1.05517515866912e-40	12
1	lth	1.86194446647532	0	0	376.509878456287	32.6727435361301	1.84586693719353e-09	9
1	qpt	1.89493450921295	0	0	360.514675455698	16.6775405355413	5.61824126749324e-06	8
1	qph	1.67636333849074	0	0	394.422738950002	50.5856040298452	2.49394029033453e-13	9
1	qth	1.85305564969343	0	0	363.133114763812	19.2959798436555	1.59191778253445e-06	8
1	pth	1.86800434388302	0	0	344.330339843892	0.493204923735732	0.0193748447797182	6
1	lqpt	1.89493386236863	0	0	360.514780597542	16.6776456773853	6.07760275810592e-06	8
1	lqph	1.6806337257634	0	0	394.424364641114	50.5872297209573	2.70111953212432e-13	9
1	lqth	1.83153075087518	0	0	376.864227509895	33.0270925897381	1.80367750448048e-09	9
1	lpth	1.85386337997934	0	0	344.330339843892	0.493204923735732	0.0210548737946977	6
1	qpth	1.833149799442	0	0	344.330339843892	0.493204923735732	0.0211795881633128	6
1	lqpth	1.86063013107202	0	0	344.330339843892	0.493204923735732	0.0213057887770561	6
2	l	1.61656213158916	0	0	361.740775538477	17.9036406183203	3.62972020397186e-06	3
2	q	1.60309206937317	0	0	362.253946015647	18.4168110954905	2.88924782037284e-06	4
2	p	1.52994407482497	0	0	363.647571434435	19.8104365142781	1.4820741850667e-06	3
2	t	NA	NA	0	364.919114207908	21.0819792877512	8.08813414053076e-07	3
2	h	1.54308859603742	0	0	464.462787438424	120.625652518268	2.02167798845719e-28	11
2	lq	1.61215185834601	0	0	360.323083558242	16.4859486380857	8.57606876778556e-06	4
2	lp	1.56644945534416	0	0	363.644058103973	19.8069231838164	1.68476471716239e-06	3
2	lt	1.62258361904764	0	0	364.104394801028	20.2672598808712	1.38504322111096e-06	4
2	lh	1.65815956288283	0	0	365.777515889442	21.9403809692859	6.21674831494702e-07	5
2	qp	1.64545699839925	0	0	365.559737107462	21.722602187306	7.19174269546112e-07	4
2	qt	1.60231475869057	0	0	365.234488774172	21.3973538540157	8.7912826350693e-07	5
2	qh	1.60310655679579	0	0	360.864451692025	17.0273167718682	8.13281749733829e-06	4
2	pt	1.53127607801437	0	0	366.442009629463	22.6048747093063	5.21259314817413e-07	4
2	ph	1.57165005957359	0	0.125	389.869742004705	46.0326070845483	4.45170099396842e-12	8
2	th	1.53990379201594	0	0	424.420770837849	80.5836359176926	1.46369375845517e-19	10
2	lqp	1.65429982847845	0	0	365.561464480093	21.7243295599362	9.27034053898734e-07	4
2	lqt	1.63060585262643	0	0	364.119109404677	20.2819744845203	2.00366413941191e-06	5
2	lqh	1.62226331981865	0	0	360.019768986521	16.1826340663648	1.63918442533442e-05	4
2	lpt	1.56979798826375	0	0	366.441661512776	22.6045265926193	6.98275749336196e-07	4
2	lph	1.60752999074212	0	0	366.942979310173	23.1058443900166	5.76042245207896e-07	5
2	lth	1.62508711302757	0	0	371.3700069948	27.5328720746439	6.69867285743126e-08	6
2	qpt	1.63815347372707	0	0	370.23352243209	26.3963875119339	1.26297485685176e-07	5
2	qph	1.69666670844363	0	0	358.355873221146	14.5187383009892	5.14295587656415e-05	3
2	qth	1.61263916008352	0	0	364.505592104285	20.6684571841282	2.56321045858857e-06	5
2	pth	1.56749322697853	0	0.125	402.236864296151	58.3997293759942	1.78327857579506e-14	9
2	lqpt	1.64077915977455	0	0	370.138803907802	26.3016689876458	1.82010380158486e-07	5
2	lqph	1.68490051098078	0	0	358.355873199663	14.5187382795066	7.26761002806748e-05	3
2	lqth	1.63774204996742	0	0	364.200700960653	20.3635660404962	4.36067563219307e-06	5
2	lpth	1.60563026867579	0	0	365.274867819263	21.4377328991064	2.88040927198499e-06	5
2	qpth	1.68725964239932	0	0	365.664235572407	21.8271006522503	2.72572256024096e-06	5
2	lqpth	1.69749631118838	0	0	365.664235572407	21.8271006522503	3.2055316797893e-06	5