





types of	ch	aracters		
(morph	olo	gical, behavioral, ecologic	al)	
molecu	lar:	rDNA, mtDNA, nuclear g	jenes	
Monkey Human Mouse Fig Cow Rat Monkey Human Mouse Fig Cow Rat	1 1 1 1 1 1 61 61 61 61 61	CRE atggccacagacat (gcgtca)agataggaggttd agggccacagacat (cggtca)agataggaggtd agggccacagacat (cggtca)agataggaggtd agggccacagacat (cggtca)agataggaggtd agggccacagacat (cggtca)agataggaggtd ml ggactgggggcgtggaaaggactggggaagactgg ggactggggggggggaaggactggggaagactgg ggactggggggggggaaggactggggaagactgg ggactgggggggggggaaggactggggaagactgg ggactgggggggggggaaggactggggaagactgg ggactgggggggggggaaggactggggaagactgg ggactgggggggggggaaggactggggaagactgg ggactggggggggggggaaggactggggaagactgg ggactggggggggggggaaggactggggaagactgg ggactgggggggggggggggaaggactggggaagactgg ggactgggggggggggggggggaaggactggggaagactgg ggactggggggggggggggaaggactggggaagactgg ggactggggggggggggggggggggggaagactgggggaagactggggaagactggggaagactggggaagactggggaagactggggaagactggggaagactggggaagactgggggaagactggggaagactggggaagactggggaagactggggaagactggggaagactggggaagactggggaagactgggggggg	aatgccacgggca aatgccatggca aatgccatggca aatgccatggca aatgccatggca <b>p m2</b> 96 96 95 95 95	ggggcaactc 60 ggggcaactc 60 ggggcaactg 60 ggggcaactc 60 ggggcaact 60 ggggcaactg 60































The Number of Different Unrooted Trees for 3–30 Taxa			
Number of Taxa	Unrooted Trees		
3	1		
4	3		
5	15		
6	105		
7	945		
8	10,395		
9	135,135		
10	2,027,025		
11	34,459,425		
12	654,729,075		
13	13,749,310,575 more 13 species trees than people on earth		
14	316,234,143,225		
15	7,905,853,580,625		
16	213,458,046,676,875		
17	6,190,283,353,629,375		
18	191,898,783,962,510,625		
19	6,332,659,870,762,850,625		
20	221,643,095,476,699,771,875		
21	8,200,794,532,637,891,559,375		
22	319,830,986,772,877,770,815,625 more 22 spp trees than stars in the universe		
23	13,113,070,457,687,988,603,440,625		
24	563,862,029,680,583,509,947,946,875		
25	25,373,791,335,626,257,947,657,609,375		
26	1,192,568,192,774,434,123,539,907,640,625		
27	58,435,841,445,947,272,053,455,474,390,625		
28	2,980,227,913,743,310,874,726,229,193,921,875		
29	157,952,079,428,395,476,360,490,147,277,859,375		
30	8,687,364,368,561,751,199,826,958,100,282,265,625		



















