

Supplementary Table 2. Group-specific barcodes for selected genera representing all eukaryotic supergroups (in brackets number of corresponding sequences in the GenBank). NM denotes nucleomorph origin. Variable regions used in 18S and 28S genes are indicated in some cases.

Supergroup	Phylum/Class	Genus	Barcode 1	Barcode 2	Barcode 3	References
ALVEOLATA	Apicomplexa	Eimeria	ITS (542)	COI (102)		[1,2]
		Neospora	ITS1 (75)			[3,4]
		Sarcocystis	ITS1 (144)	COI (9)		[5]
	Ciliophora	Carchesium	ITS (62)	COI (59)	28S (58)	[6]
		Coleps	cyt b (28)			[7]
		Paramecium	ITS (388)	COI (210)		[8], [9], [10]
		Tetrahymena	COI (141)	18S (34)		[11-13]
	Dinophyceae	Alexandrium	ITS (452)	28S/D1-D2 (220)	COI (66) cob (5)	[14-17]
		Pfiesteria	ITS (28)	18S (11)	COI (8)	[17,18]
		Prorocentrum	COI (74)	ITS (24)	cob (7)	[15-19]
		Symbiodinium	ITS 1 (73) ITS2 (2551)	psbA (97)	Cp 23S (592)	[16,17,20-23]
		metabarcoding	COI	cytb		[17]
	Perkinsea	Perkinsus	ITS (387)	NTS (23)		[24,25]
	Syndiniales	Euduboscquella	ITS (62)			[26]
AMOEBOZOA	Archamoebae	Entamoeba	18S (123)	ITS (17)		[27,28]
	Centramoebae	Acanthamoeba	18S (1240)			[29-32]
	Discosea	Cochliopodium	18S (16)	COI (2)		[33,34]
		Parvamoeba	18S (7)	COI (2)		[35]
		Paramoeba	18S (5)			[36]
		Neoparamoeba	ITS (154)	18S (33)		[37-39]
		Vannella	COI (236)	ITS (109)		[40]
	Dictyostelia	various genera	ITS (364)	18S (169)		[41,42]
	Myxogastria	various genera	18S/5-11 (101)	ITS (59)		[43-46]
	Protostelia	various genera	18S (28)			[43,47]
	Tubulinea/Arcellinida	various genera	COI (59)	18S (18)		[48-50]
ARCHAEPLASTIDA	Chlorophyta	Caulerpa	ITS2 (450)	tufA (383)		[51,52]
		Volvocales	ITS2 (234)	18S (735)		[53]
		Ulva	ITS2 (621)	rbcL (81)	tufA (138) Cp 23S (3)	[54,55]
		various genera	Cp 23S (16)			[55]
	Rhodophyta	various genera	COI (8767)	ITS (1516)	rbcL (5353) 28S (1649)	[56-61]
EXCAVATA	Euglenozoa/Euglenida	various genera	18S (287)	28S (289)	16S (242)	[62]
	Euglenozoa/Kinetoplastea	Bodo/Neobodo	18S (87)			[62-64]
	Euglenozoa/Kinetoplastea	Trypanosomatidae	SL RNA	18S (880)	GAPDH (90)	[65-68]

			(939)			
	Fornicata	various genera	18S (148)	ITS (89)		[69]
	Heterolobosea	Naegleria	ITS (322)	18S (58)		[70,71]
	Parabasalia	various genera	ITS (343)	18S (73)		[72-75]
OPISTHOKONTA	Choanoflagellida	various genera	18S/V4 (68)			[76]
	Mesomycetozoea/Ichtyosporea	various genera	ITS (475)	18S (148)	EFL (62)	[77,78]
RHIZARIA	Cercozoa/Euglyphida	various genera	COI (35)	18S (14)		[50,79-82]
	Cercozoa/Glissomonadida	various genera	18S (164)			[83,84]
	Cercozoa/Chlorarachniophyceae	various genera	ITSnm (19)	ITSnuc (10)		[85]
	Cercozoa	various genera	18S (465)	ITS (154)		[85-88]
	Plasmodiophorida	various genera	ITS (85)			[89-91]
	Haplosporidia	Bonamia	ITS (132)	18S (19)	Actin1 (6)	[92,93]
	Foraminifera	various genera	18S/32-50 (2147)	28S/D1-D2 (331)	ITS (659)	[94-96]
	Radiolaria/Acantharea	various genera	28S (113)	18S (88)		[97]
	Radiolaria/Polycystinea	various genera	18S (46)	ITS (10)		[98,99]
STRAMENOPILES	Bacillariophyta	Sellaphora, some raphid pennates	rbcl (105)	COI (59)	28S/D2-D3 (79)	[100-105]
		various genera	18S / V4 (3039)	ITS (1204)	rbcl (105)	[102,106- 108]
	Bicoceea	various genera	18S (58)	28S (12)		[82]
	Blastocystis	Blastocystis	18S (291)			[109-112]
	Bolidophyceae	various genera	18S (11)			[113]
	Chrysophyceae-Synurophyceae	Dinobryon	COI (44)	ITS (44)		[114]
		Synura	ITS (139)	18S (113)		[115]
	Dictyochophyceae	various genera	18S (33)	ITS (46)		[116,117]
	Eustigmatophyceae	various genera	18S (96)	ITS (8)		[117]
	Labyrinthulea	various genera	18S (435)	ITS (85)		[118]
	Oomyceta	various genera	ITS (7029)	COI (450)	18S (456)	[81,119]
	Slopalinida	various genera	18S (14)			[120,121]
	Pelagophyceae	various genera	18S (64)			[117]
	Phaeophyceae	Fucus	COI (125)	ITS (116)		[122]
	Phaeophyceae	various genera	COI (1781)	ITS (1459)	Cp 23S (14)	[55,123-125]
	Raphidophyceae	Chattonella	COI (156)	ITS (119)	18S (20)	[126]
	Xanthophyceae	various genera	rbcl (266)	18S (73)		[127]
XXX	Centroheliozoa	various genera	18S (40)			[128]
XXX	Cryptophyta	various genera	18S (299)	ITS (66)		[129]
XXX	Haptophyta	various genera	18S (338)	28S (113)	ITS (45)	[130]

References

1. Motriuk-Smith D, Seville RS, Quealy L, Oliver CE (2011) Comparison of the ITS1 and ITS2 rDNA in *Eimeria callospermophili* (Apicomplexa:Eimeriidae) from sciurid rodents. *J Parasitol* 97: 305-310.
2. Ogedengbe JD, Hanner RH, Barta JR (2011) DNA barcoding identifies *Eimeria* species and contributes to the phylogenetics of coccidian parasites (Eimeriorina, Apicomplexa, Alveolata). *Int J Parasitol* 41: 843-850.
3. Gondim LF, Laski P, Gao L, McAllister MM (2004) Variation of the internal transcribed spacer 1 sequence within individual strains and among different strains of *Neospora caninum*. *J Parasitol* 90: 119-122.
4. Slapeta JR, Koudela B, Votykpa J, Modry D, Horejs R, et al. (2002) Coprodiagnosis of *Hammondia heydorni* in dogs by PCR based amplification of ITS 1 rRNA: differentiation from morphologically indistinguishable oocysts of *Neospora caninum*. *Vet J* 163: 147-154.
5. Wendte JM, Miller MA, Nandra AK, Peat SM, Crosbie PR, et al. (2010) Limited genetic diversity among *Sarcocystis neurona* strains infecting southern sea otters precludes distinction between marine and terrestrial isolates. *Vet Parasitol* 169: 37-44.
6. Gentekaki E, Lynn DH (2009) High-level genetic diversity but no population structure inferred from nuclear and mitochondrial markers of the peritrichous ciliate *Carchesium polypinum* in the Grand River basin (North America). *Appl Environ Microbiol* 75: 3187-3195.
7. Barth D, Tischer K, Berger H, Schlegel M, Berendonk TU (2008) High mitochondrial haplotype diversity of *Coleps* sp. (Ciliophora: Prostomatida). *Environ Microbiol* 10: 626-634.
8. Barth D, Krenek S, Fokin SI, Berendonk TU (2006) Intraspecific genetic variation in *Paramecium* revealed by mitochondrial cytochrome C oxidase I sequences. *J Eukaryot Microbiol* 53: 20-25.
9. Struder-Kypke MC LD (2010) Comparative analysis of the mitochondrial cytochrome c oxidase subunit I (COI) gene in ciliates (Alveolata, Ciliophora) and evaluation of its suitability as a biodiversity marker. *Systematics and Biodiversity* 8:131-148.
10. Greczek-Stachura M, Potekhin A, Przybos E, Rautian M, Skoblo I, et al. (2011) Identification of *Paramecium bursaria* Syngens through Molecular Markers - Comparative Analysis of Three Loci in the Nuclear and Mitochondrial DNA. *Protist*.
11. Chantangsi C, Lynn DH, Brandl MT, Cole JC, Hetrick N, et al. (2007) Barcoding ciliates: a comprehensive study of 75 isolates of the genus *Tetrahymena*. *Int J Syst Evol Microbiol* 57: 2412-2425.
12. Kher CP, Doerder FP, Cooper J, Ikononi P, Achilles-Day U, et al. (2011) Barcoding *Tetrahymena*: discriminating species and identifying unknowns using the cytochrome c oxidase subunit I (cox-1) barcode. *Protist* 162: 2-13.
13. Lynn DH, Struder-Kypke MC (2006) Species of *tetrahymena* identical by small subunit rRNA gene sequences are discriminated by mitochondrial cytochrome c oxidase I gene sequences. *J Eukaryot Microbiol* 53: 385-387.
14. Kim CJ, Kim CH, Sako Y (2005) Development of molecular identification method for genus *Alexandrium* (Dinophyceae) using whole-cell FISH. *Mar Biotechnol (NY)* 7: 215-222.
15. Lin S, Zhang H, Hou Y, Zhuang Y, Miranda L (2009) High-level diversity of dinoflagellates in the natural environment, revealed by assessment of mitochondrial *cox1* and *cob* genes for dinoflagellate DNA barcoding. *Appl Environ Microbiol* 75: 1279-1290.
16. Stern RF, Andersen, R.A., Jameson, I., Küpper, F.C., Coffroth, M.A., Vulot, D., Le Gall, F., Véron, B., Brand, J.J., Skelton, H., Kasai, F., Lilly, E.L., Keeling, P.J. (2012) Evaluating the ribosomal internal transcribed spacer (ITS) as a candidate dinoflagellate barcode marker. . *PLoS ONE* [pas encore sorti].
17. Stern RF, Horak A, Andrew RL, Coffroth MA, Andersen RA, et al. (2010) Environmental barcoding reveals massive dinoflagellate diversity in marine environments. *PLoS One* 5: e13991.
18. Litaker RW VM, Kibler SR, Reece KS, Stokes NA, Lutzoni FM, Yonish BA, West MA, Black MND, Tester PA (2007) Recognizing Dinoflagellate species using its rDNA sequences. *J Phycol* 43: 344-355.
19. Ferrell J (2008) The evaluation of DNA barcoding for species identification of dinoflagellates,. Mount Allison University.
20. LaJeunesse TC, Thornhill DJ (2011) Improved resolution of reef-coral endosymbiont (*Symbiodinium*) species diversity, ecology, and evolution through *psbA* non-coding region genotyping. *PLoS One* 6: e29013.
21. Pochon X, Putnam HM, Burki F, Gates RD (2012) Identifying and characterizing alternative molecular markers for the symbiotic and free-living dinoflagellate genus *Symbiodinium*. *PLoS One* 7: e29816.

22. Pochon X LT, Pawlowski J. (2004) Biogeographic partitioning and host specialization among foraminiferan dinoflagellate symbionts (Symbiodinium ; Dinophyta) *Marine Biology* 146: 17–27.
23. Santos S, Gutierrez-Rodriguez, C, Coffroth, MA (2003) Phylogenetic identification of symbiotic dinoflagellates via length heteroplasmy in domain V of chloroplast large subunit (cp23S)—ribosomal DNA sequences. *Mar Biotechnol (NY)* 5(2): 130-140.
24. Elandaloussi L, Carrasco N, Furones D, Roque A (2009) Phylogenetic relationship of *Perkinsus olseni* from the Ebro Delta, Spain, to other *Perkinsus* species, based on ribosomal DNA sequences. *Dis Aquat Organ* 86: 135-142.
25. Park KI, Park JK, Lee J, Choi KS (2005) Use of molecular markers for species identification of Korean *Perkinsus* sp. isolated from Manila clams *Ruditapes philippinarum*. *Dis Aquat Organ* 66: 255-263.
26. Bachvaroff TR, Kim S, Guillou L, Delwiche CF, Coats DW (2012) Molecular diversity of the syndinean genus *Euduboscquella* based on single-cell PCR analysis. *Appl Environ Microbiol* 78: 334-345.
27. Stensvold CR, Lebbad M, Verweij JJ, Jespersgaard C, von Samson-Himmelstjerna G, et al. (2010) Identification and delineation of members of the *Entamoeba* complex by pyrosequencing. *Mol Cell Probes* 24: 403-406.
28. Stensvold CR, Lebbad M, Victory EL, Verweij JJ, Tannich E, et al. (2011) Increased sampling reveals novel lineages of *Entamoeba*: consequences of genetic diversity and host specificity for taxonomy and molecular detection. *Protist* 162: 525-541.
29. Booton GC, Visvesvara GS, Byers TJ, Kelly DJ, Fuerst PA (2005) Identification and distribution of *Acanthamoeba* species genotypes associated with nonkeratitis infections. *J Clin Microbiol* 43: 1689-1693.
30. Corsaro DV, D. (2011) More *Acanthamoeba* genotypes: limits to the use of rDNA fragments to describe new genotypes. *Acta Protozool*, 50:49-54.
31. Ledee DR, Iovieno A, Miller D, Mandal N, Diaz M, et al. (2009) Molecular identification of t4 and t5 genotypes in isolates from *acanthamoeba* keratitis patients. *J Clin Microbiol* 47: 1458-1462.
32. Stothard DR, Schroeder-Diedrich JM, Awwad MH, Gast RJ, Ledee DR, et al. (1998) The evolutionary history of the genus *Acanthamoeba* and the identification of eight new 18S rRNA gene sequence types. *J Eukaryot Microbiol* 45: 45-54.
33. Kudryavtsev A, Bernhard D, Schlegel M, Chao EE, Cavalier-Smith T (2005) 18S ribosomal RNA gene sequences of *Cochliopodium* (Himatismenida) and the phylogeny of Amoebozoa. *Protist* 156: 215-224.
34. Kudryavtsev A, WK, Pawlowski J. (2011) *Ovalopodium desertum* n. sp. and the phylogenetic relationships of *Cochliopodiidae* (Amoebozoa). *Protist* 162:571-589.
35. Kudryavtsev A (2012) Microscopic evidence for inclusion of *Parvamoeba* Rogerson, 1993 into the order *Himatismenida* (Amoebozoa). *Europ J Protistol* 47:85-88.
36. Kudryavtsev A PJ, Hausmann K (2011) Description of *Paramoeba atlantica* n. sp. (Amoebozoa, Dactylopodida) – a marine amoeba from the Eastern Atlantic, with emendation of the dactylopodid families. *Acta Protozool* 50:239-253.
37. Dykova I, Nowak B, Peckova H, Fiala I, Crosbie P, et al. (2007) Phylogeny of *Neoparamoeba* strains isolated from marine fish and invertebrates as inferred from SSU rDNA sequences. *Dis Aquat Organ* 74: 57-65.
38. Dykova I, Nowak BF, Crosbie PB, Fiala I, Peckova H, et al. (2005) *Neoparamoeba branchiphila* n. sp., and related species of the genus *Neoparamoeba* Page, 1987: morphological and molecular characterization of selected strains. *J Fish Dis* 28: 49-64.
39. Fiala I, Dykova I (2003) Molecular characterisation of *Neoparamoeba* strains isolated from gills of *Scophthalmus maximus*. *Dis Aquat Organ* 55: 11-16.
40. Nasonova E, Smirnov A, Fahrni J, Pawlowski J (2010) Barcoding amoebae: comparison of SSU, ITS and COI genes as tools for molecular identification of naked lobose amoebae. *Protist* 161: 102-115.
41. Romeralo M, Cavender JC, Landolt JC, Stephenson SL, Baldauf SL (2011) An expanded phylogeny of social amoebas (*Dictyostelia*) shows increasing diversity and new morphological patterns. *BMC Evol Biol* 11: 84.
42. Romeralo M, Escalante R, Sastre L, Lado C (2007) Molecular systematics of dictyostelids: 5.8S ribosomal DNA and internal transcribed spacer region analyses. *Eukaryot Cell* 6: 110-116.
43. Fiore-Donno AM, Kamono A, Chao EE, Fukui M, Cavalier-Smith T (2010) Invalidation of *Hyperamoeba* by transferring its species to other genera of *Myxogastria*. *J Eukaryot Microbiol* 57: 189-196.
44. Fiore-Donno AM, Meyer M, Baldauf SL, Pawlowski J (2008) Evolution of dark-spored *Myxomycetes* (slime-molds): molecules versus morphology. *Mol Phylogenet Evol* 46: 878-889.
45. Fiore-Donno AM, Novozhilov YK, Meyer M, Schnittler M (2011) Genetic structure of two protist species (*Myxogastria*, Amoebozoa) suggests asexual reproduction in sexual Amoebae. *PLoS One* 6: e22872.

46. Winsett KE SS (2008) Using ITS sequences to assess intraspecific genetic relationships among geographically separated collections of the myxomycete *Didymium squamulosum*. *Rev Mex Micol* 27:59–65.
47. Shadwick LL, Spiegel FW, Shadwick JD, Brown MW, Silberman JD (2009) Eumycetozoa = Amoebozoa?: SSUrDNA phylogeny of protosteloid slime molds and its significance for the amoebozoan supergroup. *PLoS One* 4: e6754.
48. Kosakyan A, Heger TJ, Leander BS, Todorov M, Mitchell EA, et al. (2012) COI Barcoding of Nebelid Testate Amoebae (Amoebozoa: Arcellinida): Extensive Cryptic Diversity and Redefinition of the Hyalospheniidae Schultze. *Protist* 163: 415-434.
49. Kudryavtsev A, Pawlowski J, Hausmann K (2009) Description and phylogenetic relationships of *Spumochlamys perforata* n. sp. and *Spumochlamys bryora* n. sp. (Amoebozoa, Arcellinida). *J Eukaryot Microbiol* 56: 495-503.
50. Lara E, Heger TJ, Ekelund F, Lamentowicz M, Mitchell EA (2008) Ribosomal RNA genes challenge the monophyly of the Hyalospheniidae (Amoebozoa: Arcellinida). *Protist* 159: 165-176.
51. Jousson O, Pawlowski J, Zaninetti L, Zechman FW, Dini F, et al. (2000) Invasive alga reaches California. *Nature* 408: 157-158.
52. Stam WT, Olsen, J.L., Zaleski, S.F., Murray, S.N., Brown, K.R. & Walters, L.J. (2006) A forensic and phylogenetic survey of *Caulerpa* species (Caulerpaceae, Chlorophyta) from the Florida coast, local aquarium shops, and e-commerce: establishing a proactive baseline for early detection. *Journal of Phycology* 42: 1113-1124.
53. Coleman AW (2000) The significance of a coincidence between evolutionary landmarks found in mating affinity and a DNA sequence. *Protist* 151: 1-9.
54. Saunders GV KH (2010) An evaluation of *rbcl*, *tufA*, *UPA*, *LSU* and *ITS* as DNA barcode markers for the marine green macroalgae. *Cryptogamie, Algologie*, 31: 487-528.
55. Sherwood AR, Prestling, G.G. (2007) Universal primers amplify a 23S rDNA plastid marker in eukaryotic algae and cyanobacteria. *J Phycol* 43(3): 605-608.
56. Clarkston BES, G.W. (2010) A comparison of two DNA barcode markers for species discrimination in the red algal family Kallymeniaceae (Gigartinales), with a description of *Euthora timburtonii*. *Botany* 88: 119-131.
57. Le Gall LS, G.W. (2010) DNA barcoding is a powerful tool to uncover algal diversity: a case study of the Phyllophoraceae (Gigartinales, Rhodophyta) in the Canadian flora. *J Phycol* 46: 374-389.
58. Robba L, Russell SJ, Barker GL, Brodie J (2006) Assessing the use of the mitochondrial *cox1* marker for use in DNA barcoding of red algae (Rhodophyta). *Am J Bot* 93: 1101-1108.
59. Saunders GW (2005) Applying DNA barcoding to red macroalgae: a preliminary appraisal holds promise for future applications. *Philos Trans R Soc Lond B Biol Sci* 360:1879-88.
60. Saunders GW (2008) A DNA barcode examination of the red algal family Dumontiaceae in Canadian waters reveals substantial cryptic species diversity. 1. The foliose *Dilsea*-*Neodilsea* complex and *Weeksia*. *Botany* 86: 773-789 (shared cover article).
61. Saunders GW (2009) Routine DNA barcoding of Canadian Gracilariales (Rhodophyta) reveals the invasive species *Gracilaria vermiculophylla* in British Columbia. *Molecular Ecology Resources* 9 (Suppl 1), 140–150
62. Linton EW, Karnkowska-Ishikawa A, Kim JI, Shin W, Bennett MS, et al. (2010) Reconstructing euglenoid evolutionary relationships using three genes: nuclear SSU and LSU, and chloroplast SSU rDNA sequences and the description of *Euglenaria* gen. nov. (Euglenophyta). *Protist* 161: 603-619.
63. von der Heyden S, Cavalier-Smith T (2005) Culturing and environmental DNA sequencing uncover hidden kinetoplastid biodiversity and a major marine clade within ancestrally freshwater *Neobodo* designis. *Int J Syst Evol Microbiol* 55: 2605-2621.
64. von der Heyden S, Chao EE, Vickerman K, Cavalier-Smith T (2004) Ribosomal RNA phylogeny of bodonid and diplomemid flagellates and the evolution of euglenozoa. *J Eukaryot Microbiol* 51: 402-416.
65. Maslov DA, Westenberger SJ, Xu X, Campbell DA, Sturm NR (2007) Discovery and barcoding by analysis of spliced leader RNA gene sequences of new isolates of Trypanosomatidae from Heteroptera in Costa Rica and Ecuador. *J Eukaryot Microbiol* 54: 57-65.
66. Votypka J, Maslov DA, Yurchenko V, Jirku M, Kment P, et al. (2010) Probing into the diversity of trypanosomatid flagellates parasitizing insect hosts in South-West China reveals both endemism and global dispersal. *Mol Phylogenet Evol* 54: 243-253.
67. Yurchenko VY, Lukes J, Jirku M, Zeledon R, Maslov DA (2006) *Leptomonas costaricensis* sp. n. (Kinetoplastea: Trypanosomatidae), a member of the novel phylogenetic group of insect trypanosomatids closely related to the genus *Leishmania*. *Parasitology* 133: 537-546.

68. Yurchenko VY, Lukes J, Tesarova M, Jirku M, Maslov DA (2008) Morphological discordance of the new trypanosomatid species phylogenetically associated with the genus crithidia. *Protist* 159: 99-114.
69. Kolisko M, Silberman JD, Cepicka I, Yubuki N, Takishita K, et al. (2010) A wide diversity of previously undetected free-living relatives of diplomonads isolated from marine/saline habitats. *Environ Microbiol* 12: 2700-2710.
70. De Jonckheere JF (2006) Isolation and molecular identification of free-living amoebae of the genus *Naegleria* from Arctic and sub-Antarctic regions. *Eur J Protistol* 42: 115-123.
71. Edagawa A, Kimura A, Kawabuchi-Kurata T, Kusuhara Y, Karanis P (2009) Isolation and genotyping of potentially pathogenic *Acanthamoeba* and *Naegleria* species from tap-water sources in Osaka, Japan. *Parasitol Res* 105: 1109-1117.
72. Gile GH, James, E. R., Scheffrahn, R. H., Carpenter, K. J., and Keeling, P. J. (2011) Molecular and morphological analysis of the Calonymphidae with a description of *Calonympha chia* sp. nov., *Snyderella kirbyi* sp. nov., and *Snyderella swezyae* sp. nov. *Int. J Syst Evol Microbiol* 61:2547-58.
73. Harper JT, Gile, G. H., James, E. R., Carpenter, K. J. and Keeling, P. J. (2009) The inadequacy of morphology for species and genus delineation in microbial eukaryotes: an example from the parabasal termite symbiont *Coronympha*. *PLoS One* 4, e6577
74. Saldarriaga JF, Gile, G. H., James, E. R., Horak, A., Scheffrahan, R. H., and Keeling, P. J. (2011) Morphology and molecular phylogeny of *Pseudotriconympha paulistana* and *Pseudotriconympha hertwigi* (Trichonympha, Parabasalia) from neotropical rhinotermitids. *J Eukaryot Microbiol* 58:487-96
75. Smejkalova P, Petrzalkova KJ, Pomajbikova K, Modry D, Cepicka I (2012) Extensive diversity of intestinal trichomonads of non-human primates. *Parasitology* 139: 92-102.
76. Nitsche F, Carr M, Arndt H, Leadbeater BS (2011) Higher level taxonomy and molecular phylogenetics of the Choanoflagellata. *J Eukaryot Microbiol* 58: 452-462.
77. Marshall WL, Berbee ML (2010) Population-level analyses indirectly reveal cryptic sex and life history traits of *Pseudoperkinsus tapetis* (Ichthyosporea, Opisthokonta): a unicellular relative of the animals. *Mol Biol Evol* 27: 2014-2026.
78. Marshall WL, Celio G, McLaughlin DJ, Berbee ML (2008) Multiple isolations of a culturable, motile Ichthyosporean (Mesomycetozoa, Opisthokonta), *Creolimax fragrantissima* n. gen., n. sp., from marine invertebrate digestive tracts. *Protist* 159: 415-433.
79. Heger TJ, Mitchell EA, Todorov M, Golemansky V, Lara E, et al. (2010) Molecular phylogeny of euglyphid testate amoebae (Cercozoa: Euglyphida) suggests transitions between marine supralittoral and freshwater/terrestrial environments are infrequent. *Mol Phylogenet Evol* 55: 113-122.
80. Heger TJ, Pawlowski J, Lara E, Leander BS, Todorov M, et al. (2011) Comparing potential COI and SSU rDNA barcodes for assessing the diversity and phylogenetic relationships of cyphoderiid testate amoebae (Rhizaria: Euglyphida). *Protist* 162: 131-141.
81. Lara E HT, Scheihing R, Mitchell EAD (2011) COI gene and ecological data suggest size-dependent high dispersal and low intra-specific diversity in free-living terrestrial protists (Euglyphida: Assulina). *J Biogeogr* 38:640-650.
82. Wylezich C, Nies G, Mylnikov AP, Tautz D, Arndt H (2010) An evaluation of the use of the LSU rRNA D1-D5 domain for DNA-based taxonomy of eukaryotic protists. *Protist* 161: 342-352.
83. Howe AT, Bass D, Chao EE, Cavalier-Smith T (2011) New genera, species, and improved phylogeny of Glissomonadida (Cercozoa). *Protist* 162: 710-722.
84. Howe AT, Bass D, Vickerman K, Chao EE, Cavalier-Smith T (2009) Phylogeny, taxonomy, and astounding genetic diversity of glissomonadida ord. nov., the dominant gliding zooflagellates in soil (Protozoa: Cercozoa). *Protist* 160: 159-189.
85. Gile GH SR, James ER, Keeling PJ (2010) DNA barcoding of Chlorarachniophytes using nucleomorph ITS sequences. *J Phycol* 46, 743-750.
86. Bass D, Chao EE, Nikolaev S, Yabuki A, Ishida K, et al. (2009) Phylogeny of novel naked Filose and Reticulose Cercozoa: *Granofilosea* cl. n. and *Proteomyxidea* revised. *Protist* 160: 75-109.
87. Bass D, Howe AT, Mylnikov AP, Vickerman K, Chao EE, et al. (2009) Phylogeny and classification of Cercomonadida (Protozoa, Cercozoa): *Cercomonas*, *Eocercomonas*, *Paracercomonas*, and *Cavernomonas* gen. nov. *Protist* 160: 483-521.
88. Bass D, Richards TA, Matthai L, Marsh V, Cavalier-Smith T (2007) DNA evidence for global dispersal and probable endemism of protozoa. *BMC Evol Biol* 7: 162.

89. Smith MJ, Adams MJ, Ward E (2011) Evidence that *Polymyxa* species may infect *Arabidopsis thaliana*. *FEMS Microbiol Lett* 318: 35-40.
90. Vaianopoulos C, Bragard C, Dieryck B, Moreau V, Maraite H, et al. (2007) A certain but non-exclusive association between *Polymyxa graminis* special forms and cereals. *Commun Agric Appl Biol Sci* 72: 745-750.
91. Ward E AM (1998) Analysis of ribosomal DNA sequences of *Polymyxa* species and related fungi and the development of genus- and species-specific PCR primers. *Mycological Research* 102:965-974.
92. Cochenne N, Le Roux F, Berthe F, Gerard A (2000) Detection of *Bonamia ostreae* based on small subunit ribosomal probe. *J Invertebr Pathol* 76: 26-32.
93. Robert M, Garcia C, Chollet B, Lopez-Flores I, Ferrand S, et al. (2009) Molecular detection and quantification of the protozoan *Bonamia ostreae* in the flat oyster, *Ostrea edulis*. *Mol Cell Probes* 23: 264-271.
94. Holzmann M PJ (1997) Molecular, morphological and ecological evidence for species recognition in *Ammonia* (Foraminifera). *Journal Foraminiferal Research*, 27: 311-318.
95. Pawlowski J, Fahrni J, Lecroq B, Longet D, Corneliu N, et al. (2007) Bipolar gene flow in deep-sea benthic foraminifera. *Mol Ecol* 16: 4089-4096.
96. Pawlowski J, Lecroq B (2010) Short rDNA barcodes for species identification in foraminifera. *J Eukaryot Microbiol* 57: 197-205.
97. Decelle J, Suzuki N, Mahe F, de Vargas C, Not F (2012) Molecular phylogeny and morphological evolution of the acantharia (radiolaria). *Protist* 163: 435-450.
98. Krabberod AK, Brate J, Dolven JK, Ose RF, Klaveness D, et al. (2011) Radiolaria divided into Polycystina and Spasmaria in combined 18S and 28S rDNA phylogeny. *PLoS One* 6: e23526.
99. Kunitomo Y, Sarashina I, Iijima M, Endo K, Sashida K (2006) Molecular phylogeny of acantharian and polycystine radiolarians based on ribosomal DNA sequences, and some comparisons with data from the fossil record. *Eur J Protistol* 42: 143-153.
100. Evans KM, Chepurinov VA, Mann DG (2009) Ten microsatellite markers for the freshwater diatom *Sellaphora capitata*. *Mol Ecol Resour* 9: 216-218.
101. Evans KM, Wortley AH, Mann DG (2007) An assessment of potential diatom "barcode" genes (cox1, rbcL, 18S and ITS rDNA) and their effectiveness in determining relationships in *Sellaphora* (Bacillariophyta). *Protist* 158: 349-364.
102. Evans KM MD (2009) A proposed protocol for nomenclaturally effective DNA barcoding of microalgae. *Phycologia* 48:70-74.
103. Hamsher SE, Evans KM, Mann DG, Poulickova A, Saunders GW (2011) Barcoding diatoms: exploring alternatives to COI-5P. *Protist* 162: 405-422.
104. Mann DG SS, Trobajo R, Vanormelingen P, Souffreau C. (2010) DNA barcoding for species identification and discovery in diatoms. *Cryptogamie: Algologie* 31:557-577.
105. Trobajo R MD, Clavero E, Evans KM, Vanormelingen P, McGregor RC (2010) The use of partial cox1, rbcL and LSU rDNA sequences for phylogenetics and species identification within the *Nitzschia palea* complex (Bacillariophyceae). *Eur J Phycol* 45:413-425.
106. MacGillivray ML, Kaczmarek I (2011) Survey of the efficacy of a short fragment of the rbcL gene as a supplemental DNA barcode for diatoms. *J Eukaryot Microbiol* 58: 529-536.
107. Moniz MB, Kaczmarek I (2010) Barcoding of diatoms: nuclear encoded ITS revisited. *Protist* 161: 7-34.
108. Zimmermann J JR, Gemeinholzer B (2011) Barcoding diatoms: evaluation of the V4 subregion on the 18S rRNA gene, including new primers and protocols. *Org Divers Evol* 11(3):173-192
109. Scicluna SM, Tawari B, Clark CG (2006) DNA barcoding of blastocystis. *Protist* 157: 77-85.
110. Stensvold CR, Suresh GK, Tan KS, Thompson RC, Traub RJ, et al. (2007) Terminology for Blastocystis subtypes--a consensus. *Trends Parasitol* 23: 93-96.
111. Stensvold CR, Traub RJ, von Samson-Himmelstjerna G, Jespersgaard C, Nielsen HV, et al. (2007) Blastocystis: subtyping isolates using pyrosequencing technology. *Exp Parasitol* 116: 111-119.
112. Tan KS (2008) New insights on classification, identification, and clinical relevance of *Blastocystis* spp. *Clin Microbiol Rev* 21: 639-665.
113. Guillou L, Moon-Van Der Staay SY, Claustre H, Partensky F, Vaulot D (1999) Diversity and abundance of Bolidophyceae (Heterokonta) in two oceanic regions. *Appl Environ Microbiol* 65: 4528-4536.
114. Jost SO MR, Boenigk J (2010) Cultivation-independent species identification of dinobryon species (Chrysophyceae) by means of multiplex single-cell Pcr1. *J Phycology* 46:901-906.

115. Kynclova AS, P.; Skaloudova, M. (2010) COI gene and ecological data suggest size-dependent high dispersal and low intra-specific diversity in free-living terrestrial protists (Euglyphida: Assulina) *J Biogeogr*, 38:640-650.
116. Riisberg I EB (2008) Genetic variation in bloom-forming ichthyotoxic *Pseudochattonella* species (Dictyochophyceae, Heterokonta) using nuclear, mitochondrial and plastid DNA sequence data. *European J Phycol* 43: 413-422.
117. Yang EC, Boo GH, Kim HJ, Cho SM, Boo SM, et al. (2012) Supermatrix data highlight the phylogenetic relationships of photosynthetic stramenopiles. *Protist* 163: 217-231.
118. Bergmann N, Fricke B, Schmidt MC, Tams V, Beining K, et al. (2011) A quantitative real-time polymerase chain reaction assay for the seagrass pathogen *Labyrinthula zosterae*. *Mol Ecol Resour* 11: 1076-1081.
119. Robideau GP, De Cock AW, Coffey MD, Voglmayr H, Brouwer H, et al. (2011) DNA barcoding of oomycetes with cytochrome c oxidase subunit I and internal transcribed spacer. *Mol Ecol Resour* 11: 1002-1011.
120. Kostka M, Cepicka I, Hampl V, Flegr J (2007) Phylogenetic position of Karotomorpha and paraphyly of Proteromonadidae. *Mol Phylogenet Evol* 43: 1167-1170.
121. Nishi A, Ishida K, Endoh H (2005) Reevaluation of the evolutionary position of opalinids based on 18S rDNA, and alpha- and beta-tubulin gene phylogenies. *J Mol Evol* 60: 695-705.
122. Kucera ES, G.W. (2008) Assigning morphological variants of *Fucus* (Fucales, Phaeophyceae) in Canadian waters to recognized species using DNA barcoding. *Botany*, 86: 1065-1079.
123. Lane CE, Lindstrom SC, Saunders GW (2007) A molecular assessment of northeast Pacific *Alaria* species (Laminariales, Phaeophyceae) with reference to the utility of DNA barcoding. *Mol Phylogenet Evol* 44: 634-648.
124. McDevit DC SG (2009) On the utility of DNA barcoding for species differentiation among brown macroalgae (Phaeophyceae) including a novel extraction protocol. *Phycological Research*; 57: 131-141.
125. McDevit DC SG (2010) A DNA barcode examination of the Laminariaceae (Phaeophyceae) in Canada reveals novel biogeographical and evolutionary insights. *Phycologia* Volume 49, 235-248.
126. Bowers HA, Tomas C, Tengs T, Kempton JW, Lewitus AJ, et al. (2006) Raphidophyceae [Chadefaud Ex Silva] Systematics and Rapid Identification: Sequence Analyses and Real-Time Pcr Assays. *J Phycol* 42: 1333-1348.
127. Maistro S, Broady PA, Andreoli C, Negrisol E (2007) Molecular phylogeny and evolution of the order Tribonematales (Heterokonta, Xanthophyceae) based on analysis of plastidial genes *rbcL* and *psaA*. *Mol Phylogenet Evol* 43: 407-417.
128. Cavalier-Smith T, von der Heyden S (2007) Molecular phylogeny, scale evolution and taxonomy of centrohelid heliozoa. *Mol Phylogenet Evol* 44: 1186-1203.
129. Hoef-Emden K, Kupper FC, Andersen RA (2007) Meeting report: Sloan Foundation Workshop to resolve problems relating to the taxonomy of microorganisms and to culture collections arising from the barcoding initiatives; Portland ME, November 6-7, 2006. *Protist* 158: 135-137.
130. Liu H, Probert I, Uitz J, Claustre H, Aris-Brosou S, et al. (2009) Extreme diversity in noncalcifying haptophytes explains a major pigment paradox in open oceans. *Proc Natl Acad Sci U S A* 106: 12803-12808.