

## Article

# A Morphological and Molecular Analysis of a Bloom of the Filamentous Green Alga *Pithophora*

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**Citation:** Lor, B.; Zohn, M.; Meade, M.J.; Cahoon, B.; Manoylov, K.M. A morphological and molecular analysis of a bloom of the filamentous green alga *Pithophora*. *Water* **2021**, *13*, x. <https://doi.org/10.3390/w13060760>

Academic Editor: John R. Beaver

Received: 25 January 2021

Accepted: 6 March 2021

Published: 11 March 2021

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Consensus AACC AAAATCCATGAATYATCTCTKXACAGATTATAGGKCTGCTTGACATN  
atpB - P. sp. (UTEX 787) AACCAAACTCCATGAATCTATCTTTTACAGATTATAGGCTCTGCTTGACATAC  
atpB - P.r. - coding region ATGAATTTATCTTTTACAGATTATAGGCTCTGCTTGACATAC

Consensus GANAMATTMARTAYRAAGTTCCATCAGCTGGTGTTCRTTATGATTCHATAAATG  
atpB - P. sp. (UTEX 787) GANAMATTMARTAYRAAGTTCCATCAGCTGGTGTTCRTTATGATTCHATAAATG  
atpB - P.r. - coding region GANAMATTMARTAYRAAGTTCCATCAGCTGGTGTTCRTTATGATTCHATAAATG

Consensus AATGGAGTTACATGAGAAGTTCAACAATTATTTGGTGATGGNATAGTCGCTCTGTAG  
atpB - P. sp. (UTEX 787) AATGGAGTTACATGAGAAGTTCAACAATTATTTGGTGATGGNATAGTCGCTCTGTAG  
atpB - P.r. - coding region AATGGAGTTACATGAGAAGTTCAACAATTATTTGGTGATGGNATAGTCGCTCTGTAG

Consensus ATGAGTAGTACTGATGGCTTAGGCTGGAAATCCAGCTAACACATCTGGAAATCAA  
atpB - P. sp. (UTEX 787) ATGAGTAGTACTGATGGCTTAGGCTGGAAATCCAGCTAACACATCTGGAAATCAA  
atpB - P.r. - coding region ATGAGTAGTACTGATGGCTTAGGCTGGAAATCCAGCTAACACATCTGGAAATCAA

Consensus CATATATCAGTTGMAAYGGAACCTTGGGCGTATATTAAGTATTAGGTGAACCA  
atpB - P. sp. (UTEX 787) CATATATCAGTTGMAAYGGAACCTTGGGCGTATATTAAGTATTAGGTGAACCA  
atpB - P.r. - coding region CATATATCAGTTGMAAYGGAACCTTGGGCGTATATTAAGTATTAGGTGAACCA

Consensus GATGGTAAGGACCGTTAATTCGATATGATGCTATTCATAGGCTGGACCTT  
atpB - P. sp. (UTEX 787) GATGGTAAGGACCGTTAATTCGATATGATGCTATTCATAGGCTGGACCTT  
atpB - P.r. - coding region GATGGTAAGGACCGTTAATTCGATATGATGCTATTCATAGGCTGGACCTT

Consensus TTTATTGATTAGATACAACTTAGCTATCTTTGAACTGGTATTAGGTGTAGAG  
atpB - P. sp. (UTEX 787) TTTATTGATTAGATACAACTTAGCTATCTTTGAACTGGTATTAGGTGTAGAG  
atpB - P.r. - coding region TTTATTGATTAGATACAACTTAGCTATCTTTGAACTGGTATTAGGTGTAGAG

Consensus TTAGCACCCTATAAACCAGGAGGAAAGGATAGGCTTGTGGTGGTGGAGGTTG  
atpB - P. sp. (UTEX 787) TTAGCACCCTATAAACCAGGAGGAAAGGATAGGCTTGTGGTGGTGGAGGTTG  
atpB - P.r. - coding region TTAGCACCCTATAAACCAGGAGGAAAGGATAGGCTTGTGGTGGTGGAGGTTG

Consensus AAGACGGTTTATAATGGAACCTTATAAATATGCTAAAGCTCATAGTGGAGTT  
atpB - P. sp. (UTEX 787) AAGACGGTTTATAATGGAACCTTATAAATATGCTAAAGCTCATAGTGGAGTT  
atpB - P.r. - coding region AAGACGGTTTATAATGGAACCTTATAAATATGCTAAAGCTCATAGTGGAGTT

Consensus GTTTTGGTGGAGTTGGAGAACGTACAGCTGAGGCTAATGATCTATATGCGAAATGT  
atpB - P. sp. (UTEX 787) GTTTTGGTGGAGTTGGAGAACGTACAGCTGAGGCTAATGATCTATATGCGAAATGT  
atpB - P.r. - coding region GTTTTGGTGGAGTTGGAGAACGTACAGCTGAGGCTAATGATCTATATGCGAAATGT

Consensus GAATCTAAGGTTATTGTCTGATAATCTACACAAATCAAAGTAGCTTAGTTTATG  
atpB - P. sp. (UTEX 787) GAATCTAAGGTTATTGTCTGATAATCTACACAAATCAAAGTAGCTTAGTTTATG  
atpB - P.r. - coding region GAATCTAAGGTTATTGTCTGATAATCTACACAAATCAAAGTAGCTTAGTTTATG

Consensus CAATGAATGAGCCCTGCTGCAAGAAATGCGTGTGGTGTATCTGCGATTAAACAGTAG  
atpB - P. sp. (UTEX 787) CAATGAATGAGCCCTGCTGCAAGAAATGCGTGTGGTGTATCTGCGATTAAACAGTAG  
atpB - P.r. - coding region CAATGAATGAGCCCTGCTGCAAGAAATGCGTGTGGTGTATCTGCGATTAAACAGTAG

Consensus GATCATTTCGAGATGTAATCAACAGATGATTTATTTATTTATGATAATATTTCA  
atpB - P. sp. (UTEX 787) GATCATTTCGAGATGTAATCAACAGATGATTTATTTATTTATGATAATATTTCA  
atpB - P.r. - coding region GATCATTTCGAGATGTAATCAACAGATGATTTATTTATTTATGATAATATTTCA

Consensus TTTGTACAAGCCGAGCTGAAGTATCAGCATTATTGGGCGTTTACCAAGCGCTGTG  
atpB - P. sp. (UTEX 787) TTTGTACAAGCCGAGCTGAAGTATCAGCATTATTGGGCGTTTACCAAGCGCTGTG  
atpB - P.r. - coding region TTTGTACAAGCCGAGCTGAAGTATCAGCATTATTGGGCGTTTACCAAGCGCTGTG

Consensus TATCAACCAACTTTTGCACGGAATGGAGCTTCAAGACGAATTAATCTTCCACAT  
atpB - P. sp. (UTEX 787) TATCAACCAACTTTTGCACGGAATGGAGCTTCAAGACGAATTAATCTTCCACAT  
atpB - P.r. - coding region TATCAACCAACTTTTGCACGGAATGGAGCTTCAAGACGAATTAATCTTCCACAT

Consensus TCYGGATCTATAACTCAATTCAGGCTGTATGTACACAGCAGACACATGACATGATC  
atpB - P. sp. (UTEX 787) TCYGGATCTATAACTCAATTCAGGCTGTATGTACACAGCAGACACATGACATGATC  
atpB - P.r. - coding region TCYGGATCTATAACTCAATTCAGGCTGTATGTACACAGCAGACACATGACATGATC

Consensus GGCAGCAACAACATTTATTCACCTAGATGCACTACAGTACTATCTAGAGCATTAG  
atpB - P. sp. (UTEX 787) GGCAGCAACAACATTTATTCACCTAGATGCACTACAGTACTATCTAGAGCATTAG  
atpB - P.r. - coding region GGCAGCAACAACATTTATTCACCTAGATGCACTACAGTACTATCTAGAGCATTAG

Consensus GCTAAGCTATTATCCGCAAGTAGATGATTAGATTCTACTTCAACAATGTTACAGC  
atpB - P. sp. (UTEX 787) GCTAAGCTATTATCCGCAAGTAGATGATTAGATTCTACTTCAACAATGTTACAGC  
atpB - P.r. - coding region GCTAAGCTATTATCCGCAAGTAGATGATTAGATTCTACTTCAACAATGTTACAGC

Consensus TGGATAGTTGGTAAGAATCATATGAATGAGCTCAACAGTTCAGAAACACTTCAAC  
atpB - P. sp. (UTEX 787) TGGATAGTTGGTAAGAATCATATGAATGAGCTCAACAGTTCAGAAACACTTCAAC  
atpB - P.r. - coding region TGGATAGTTGGTAAGAATCATATGAATGAGCTCAACAGTTCAGAAACACTTCAAC

Consensus TATAATCAGCTTCAAGATATAATAGCAATATTAGGCTCGATGATTTATCAGAAGAG  
atpB - P. sp. (UTEX 787) TATAATCAGCTTCAAGATATAATAGCAATATTAGGCTCGATGATTTATCAGAAGAG  
atpB - P.r. - coding region TATAATCAGCTTCAAGATATAATAGCAATATTAGGCTCGATGATTTATCAGAAGAG

Consensus GGTCTCTGTATCAGGAGCAAGAAATTTGAAGATCTTATCTCAGCATCTTTTG  
atpB - P. sp. (UTEX 787) GGTCTCTGTATCAGGAGCAAGAAATTTGAAGATCTTATCTCAGCATCTTTTG  
atpB - P.r. - coding region GGTCTCTGTATCAGGAGCAAGAAATTTGAAGATCTTATCTCAGCATCTTTTG

Consensus GCGAATTCCTTACTAATAGTCCGGAGCTTATGTAAAGTTGCAAGAACTATATTT  
atpB - P. sp. (UTEX 787) GCGAATTCCTTACTAATAGTCCGGAGCTTATGTAAAGTTGCAAGAACTATATTT  
atpB - P.r. - coding region GCGAATTCCTTACTAATAGTCCGGAGCTTATGTAAAGTTGCAAGAACTATATTT

Consensus TTTAAAGCAAACTAAGTGGTAGTTTATGATAATATTAATGAAATGAATCTATTTA  
atpB - P. sp. (UTEX 787) TTTAAAGCAAACTAAGTGGTAGTTTATGATAATATTAATGAAATGAATCTATTTA  
atpB - P.r. - coding region TTTAAAGCAAACTAAGTGGTAGTTTATGATAATATTAATGAAATGAATCTATTTA

Consensus AGGTCGTTAGATAGATTATTAAGAAAGACGATAATTAG  
atpB - P. sp. (UTEX 787) AGGTCGTTAGATAGATTATTAAGAAAGACGATAATTAG  
atpB - P.r. - coding region AGGTCGTTAGATAGATTATTAAGAAAGACGATAATTAG

Consensus	ATGGAAGCTATTACTCAAGCTGCATCAGTTTTAGCGGCTGCATTAAGTGTGGATTAT
atpH – P. sp. (UTEX 787)	ATGGAAGCTATTACTCAAGCTGCATCAGTTTTAGCGGCTGCATTAAGTGTGGATTAT
atpH – P.r. – coding region	ATGGAAGCTATTACTCAAGCTGCATCAGTTTTAGCGGCTGCATTAAGTGTGGATTAT
Consensus	GCAATWGGWCCTGGTATGGGTCAAGGTACAGCAGCCGGATATGCAGTTGAAGGAATTG
atpH – P. sp. (UTEX 787)	ATAGGACCTGGTATGGGTCAAGGTACAGCAGCCGGATATGCAGTTGAAGGAATTG
atpH – P.r. – coding region	GCAATGGCTCTGGTATGGGTCAAGGTACAGCAGCCGGATATGCAGTTGAAGGAATTG
Consensus	CGACAGCCAGAAGCAGAAGGTAARATACGTGGAGCTCTCCTTCTATCATTGCTTTTA
atpH – P. sp. (UTEX 787)	CGACAGCCAGAAGCAGAAGGTAARATACGTGGAGCTCTCCTTCTATCATTGCTTTTA
atpH – P.r. – coding region	CGACAGCCAGAAGCAGAAGGTAARATACGTGGAGCTCTCCTTCTATCATTGCTTTTA
Consensus	GAGTCACTTTGTATTTATGGCTTAGTTATTAGCTTATCRATTCTATTGCTAATCCGT
atpH – P. sp. (UTEX 787)	GAGTCACTTTGTATTTATGGCTTAGTTATTAGCTTATCRATTCTATTGCTAATCCGT
atpH – P.r. – coding region	GAGTCACTTTGTATTTATGGCTTAGTTATTAGCTTATCRATTCTATTGCTAATCCGT
Consensus	RCTTAA
atpH – P. sp. (UTEX 787)	ACT
atpH – P.r. – coding region	CTTAA

[illegible]

Consensus ATAATATCAATATCTTATGGTTCGATGATAGATTGGGCTACAAGAGATTTAGACC  
 petB – P. sp (UTEX 787) CTACAAGAGATTTAGACC  
 petB – P.r. – coding region ATAATATCAATATCTTATGGTTCGATGATAGATTGGGCTACAAGAGATTTAGACC

Consensus GTTACTAGTAARTACGTACCTCCTCATGTTAACATCTTTTATTGCTTTGGYGGATTAC  
 petB – P. sp (UTEX 787) GTTACTAGTAACTACGTACCTCCTCATGTTAACATCTTTTATTGCTTTGGYGGATTAC  
 petB – P.r. – coding region GTTACTAGTAACTACGTACCTCCTCATGTTAACATCTTTTATTGCTTTGGYGGATTAC

Consensus CTTACAAGTTTATAATMCAAGGTGGAAGTGGATTGCTTTAACTTTTCATTACAGCC  
 petB – P. sp (UTEX 787) CTTACAAGTTTATAATCAAGGTGGAAGTGGATTGCTTTAACTTTTCATTACAGCC  
 petB – P.r. – coding region CTTACAAGTTTATAATCAAGGTGGAAGTGGATTGCTTTAACTTTTCATTACAGCC

Consensus TCAGTTAATGAAGCCTTAGCTAGYGTCTTAATATTCAAAGTAATGTCATTCCAGGAT  
 petB – P. sp (UTEX 787) TCAGTTAATGAAGCCTTAGCTAGYGTCTTAATATTCAAAGTAATGTCATTCCAGGAT  
 petB – P.r. – coding region TCAGTTAATGAAGCCTTAGCTAGYGTCTTAATATTCAAAGTAATGTCATTCCAGGAT

Consensus TTAATACGATCTGCWCATCGATGGGGAGCTCTTGAATGGTYTGATGCTTATACTAC  
 petB – P. sp (UTEX 787) TTAATACGATCTGCWCATCGATGGGGAGCTCTTGAATGGTYTGATGCTTATACTAC  
 petB – P.r. – coding region TTAATACGATCTGCWCATCGATGGGGAGCTCTTGAATGGTYTGATGCTTATACTAC

Consensus GTTTGACGAGTTTATCTAACTGGAGGATTTAARAAGCCWCGAGAGYTAACWTGGATMT  
 petB – P. sp (UTEX 787) GTTTGACGAGTTTATCTAACTGGAGGATTTAARAAGCCWCGAGAGYTAACWTGGATMT  
 petB – P.r. – coding region GTTTGACGAGTTTATCTAACTGGAGGATTTAARAAGCCWCGAGAGYTAACWTGGATMT

Consensus GGTRTKTTATTTRGCAGTATGTACAGTRCTTTTGGAGTAACKGGMTATTTCATTGCCAT  
 petB – P. sp (UTEX 787) GGTATTTATTTCAGTATGTACAGTCTTTTGGAGTAACKGGMTATTTCATTGCCAT  
 petB – P.r. – coding region GGTGTCTATTTCAGTATGTACAGTCTTTTGGAGTAACKGGMTATTTCATTGCCAT

Consensus GATCAAATTGGTTACTGGGCATTAMGAATAGTTTCYGGTGTAACMGATTGAATACCAA  
 petB – P. sp (UTEX 787) GATCAAATTGGTTACTGGGCATTAGAAATAGTTTCYGGTGTAACMGATTGAATACCAA  
 petB – P.r. – coding region GATCAAATTGGTTACTGGGCATTAGAAATAGTTTCYGGTGTAACMGATTGAATACCAA

Consensus ATAGGAGGTATTTAGTTGAACCTATTCGAGGAGGTCCAAGTGTGGKCAAGCAACTT  
 petB – P. sp (UTEX 787) ATAGGAGGTATTTAGTTGAACCTATTCGAGGAGGTCCAAGTGTGGKCAAGCAACTT  
 petB – P.r. – coding region ATAGGAGGTATTTAGTTGAACCTATTCGAGGAGGTCCAAGTGTGGKCAAGCAACTT

Consensus ACCCGTTTCTATAGYMTTCATACTTTTGACTTCNTTRATTACTACYGCKTTAATGC  
 petB – P. sp (UTEX 787) ACCCGTTTCTATAGCCTTCATACTTTTGACTTCGATTGATTACTACGGCTTAATGC  
 petB – P.r. – coding region ACCCGTTTCTATAGTTCATACTTTTGACTTCGCTTATTACTACGGCTTAATGC

Consensus TGACATTTTCTACTAATTCGTAAGCAGGGTATATCNGGRCTCTTTAA  
 petB – P. sp (UTEX 787) TGACATTTTCTACTAATTCGTAAGCAGGGTATATCAGCACCTCTT  
 petB – P.r. – coding region TGACATTTTCTACTAATTCGTAAGCAGGGTATATCNGGRCTCTTTAA

[illegible]

Consensus	ATCTTTGCAACACGTTCAATATTTCTGGAACTCCAGGAGGTATCCGGCTTTGCTT
psbC – P. sp. (UTEX 787)	ATCTTTGCAACACGTTCAATATTTCTGGAACTCCAGGAGGTATCCGGCTTTGCTT
psbC – P.r. – coding region	
Consensus	TGGGCTGGTAATGCGCTTACTAATTTATCTGGACAATTAYNTRGGTKCACATGTA
psbC – P. sp. (UTEX 787)	TGGGCTGGTAATGCGCTTACTAATTTATCTGGACAATTAC-TAGGTCCACATGTA
psbC – P.r. – coding region	ATGCACTTACTAATTTATCTGGACAATTATTTGGTTCACATGTA
Consensus	GCATGCGGTCTYATGGTTTTTGGGCGGAGCTATGACTYATTYGAANNNNNNNN
psbC – P. sp. (UTEX 787)	GCATGCTGGTCTTATGGTTTTTGGGCGGAGCTATGACTTATTGGAA
psbC – P.r. – coding region	GCATGCGGTCTTATGGTTTTTGGGCGGAGCTATGACTTATTGGAGTTGGTCA
Consensus	NN
psbC – P. sp. (UTEX 787)	
psbC – P.r. – coding region	TACAACGTATAAACCACTTTATGAACAAGGATGAATTCTAATCCCTCATTTAGCTACA
Consensus	NN
psbC – P. sp. (UTEX 787)	CTTAGGGGAGCTTATTGATACGATTCTAATTCTCGTTGTA
psbC – P.r. – coding region	AGGATTAGGACTTAGACCTAGTGGTGAATTATTGATACGATTCTAATTCTCGTTGTA
Consensus	TRTMTTCACTTAATYCTTCAGCAGTWTAGGATTTGGAGGTATATTYCATTCARTA
psbC – P. sp. (UTEX 787)	TGTTTTCACCTAATCTTCAGCAGTATTAGGATTTGGAGGTATATTTCATTCARTA
psbC – P.r. – coding region	TGTTTTCACCTAATCTTCAGCAGTATTAGGATTTGGAGGTATATTTCATTCARTA
Consensus	YGGACCYGAAATAATAACGTCGGAGTCTTCGCTATTCYTGAAAGATAAGAATCAG
psbC – P. sp. (UTEX 787)	CGGACCTGAAATAATAACGTCGGAGTCTTCGCTATTCYTGAAAGATAAGAATCAG
psbC – P.r. – coding region	TGGACCTGAAATAATAACGTCGGAGTCTTCGCTATTCYTGAAAGATAAGAATCAG
Consensus	GACTTCMACTTGGATTTCAATTAATAATCTTGGGCTAGGTTNNNTYATTATNNNN
psbC – P. sp. (UTEX 787)	GACTTCMACTTGGATTTCAATTAATAATCTTGGGCTAGGTTTATTAT
psbC – P.r. – coding region	GACTTCMACTTGGATTTCAATTAATAATCTTGGGCTAGGTTCCCTTATTATGGTA
Consensus	NN
psbC – P. sp. (UTEX 787)	ATGGTGGTTTATGATCCATGGGCTCCTGTGKAGGAGATGTT
psbC – P.r. – coding region	GAAAGCTACTATTATGGTGGTTTATGATCCATGGGCTCCTGTGKAGGAGATGTT
Consensus	ATTAATAWCTAATCCTACATTAAGYCCATAYACAATATTGGCTATCTTYYAATATCG
psbC – P. sp. (UTEX 787)	ATTAATAWCTAATCCTACATTAAGYCCATAYACAATATTGGCTATCTTYYAATATCG
psbC – P.r. – coding region	ATTAATAWCTAATCCTACATTAAGYCCATAYACAATATTGGCTATCTTYYAATATCG
Consensus	YTTYGGGGGTGATGGTTGGATTGTACGYRTAGATAAATTAGAAGATGTTATTGGAGGT
psbC – P. sp. (UTEX 787)	CTTGGGGGTGATGGTTGGATTGTACGYRTAGATAAATTAGAAGATGTTATTGGAGGT
psbC – P.r. – coding region	TTTGGGGGTGATGGTTGGATTGTACGYRTAGATAAATTAGAAGATGTTATTGGAGGT
Consensus	CATMTTTATWKCCTTAATTGAAATATTGGTGGGNTYTGGCATCAGTTTACAAGTCC
psbC – P. sp. (UTEX 787)	CATMTTTATWKCCTTAATTGAAATATTGGTGGGNTYTGGCATCAGTTTACAAGTCC
psbC – P.r. – coding region	CATMTTTATWKCCTTAATTGAAATATTGGTGGGNTYTGGCATCAGTTTACAAGTCC
Consensus	GCMTTGGGCAAGTCGTTTGGTTGGTCAGGYGAAGCTTATTATCCTATTCCTTA
psbC – P. sp. (UTEX 787)	GCMTTGGGCAAGTCGTTTGGTTGGTCAGGYGAAGCTTATTATCCTATTCCTTA
psbC – P.r. – coding region	GCMTTGGGCAAGTCGTTTGGTTGGTCAGGYGAAGCTTATTATCCTATTCCTTA
Consensus	AGCACTYAGTCTWATGGGATTTATTCATGTTGATGGTATGRTTAAATAATACAGTT
psbC – P. sp. (UTEX 787)	AGCACTYAGTCTWATGGGATTTATTCATGTTGATGGTATGRTTAAATAATACAGTT
psbC – P.r. – coding region	AGCACTYAGTCTWATGGGATTTATTCATGTTGATGGTATGRTTAAATAATACAGTT
Consensus	TCCAGTGAGTTTATGGACCTACAGGACCAGAGGCTTCGAGTCTCAATCATTCA
psbC – P. sp. (UTEX 787)	TCCAGTGAGTTTATGGACCTACAGGACCAGAGGCTTCGAGTCTCAATCATTCA
psbC – P.r. – coding region	TCCAGTGAGTTTATGGACCTACAGGACCAGAGGCTTCGAGTCTCAATCATTCA
Consensus	YTTAGTACGAGATCAACGCTTGGTGCYCTGTTGCKAAGCCCAAGCKCTACTGGA
psbC – P. sp. (UTEX 787)	YTTAGTACGAGATCAACGCTTGGTGCYCTGTTGCKAAGCCCAAGCKCTACTGGA
psbC – P.r. – coding region	YTTAGTACGAGATCAACGCTTGGTGCYCTGTTGCKAAGCCCAAGCKCTACTGGA
Consensus	AGGKAAATANTYTNATAGATATACTTCAGGAGAGATTAGACTCGGAGGTAAAACATG
psbC – P. sp. (UTEX 787)	AGGKAAATANTYTNATAGATATACTTCAGGAGAGATTAGACTCGGAGGTAAAACATG
psbC – P.r. – coding region	AGGKAAATANTYTNATAGATATACTTCAGGAGAGATTAGACTCGGAGGTAAAACATG
Consensus	CTTCCGGGATCTTAGAACACCTTGA
psbC – P. sp. (UTEX 787)	CTTCCGGGATCTTAGAACACCTTGA
psbC – P.r. – coding region	

Consensus	ATGCAAAACAAACAGATCGGACAGGATTACAGCTGGTGTMMRATTATCRH
rbCL – P. sp. (UTEX 787)	ATGCAAAACAAACAGATCGGACAGGATTACAGCTGGTGTMMRATTATCACT
rbCL – P.r. – coding region	ATGCAAAACAAACAGATCGGACAGGATTACAGCTGGTGTMMRATTATCACT
Consensus	ACATA.TTAYATGAACATTATCAGGTTCAATYAAATGACCTGTTAGCGGCTTTAGAG
rbCL – P. sp. (UTEX 787)	ACATA.TTAYATGAACATTATCAGGTTCAATYAAATGACCTGTTAGCGGCTTTAGAG
rbCL – P.r. – coding region	ACATA.TTAYATGAACATTATCAGGTTCAATYAAATGACCTGTTAGCGGCTTTAGAG
Consensus	ATTTCCTAACCGAGGATACCACTGAGGAGCAGGAGCAGCAATTGCCGAGAATCAT
rbCL – P. sp. (UTEX 787)	ATTTCCTAACCGAGGATACCACTGAGGAGCAGGAGCAGCAATTGCCGAGAATCAT
rbCL – P.r. – coding region	ATTTCCTAACCGAGGATACCACTGAGGAGCAGGAGCAGCAATTGCCGAGAATCAT
Consensus	ACYGGAACTTGGACTACTGTATGACTGAYGGTTAACTAGTTTNGAGNKAAYAAAG
rbCL – P. sp. (UTEX 787)	ACYGGAACTTGGACTACTGTATGACTGAYGGTTAACTAGTTTNGAGNKAAYAAAG
rbCL – P.r. – coding region	ACYGGAACTTGGACTACTGTATGACTGAYGGTTAACTAGTTTNGAGNKAAYAAAG
Consensus	CGYTG.YTATGATATTGAATTAGTTCTCGTGAAGATAACCAATACATCCTTATATTC
rbCL – P. sp. (UTEX 787)	CGYTG.YTATGATATTGAATTAGTTCTCGTGAAGATAACCAATACATCCTTATATTC
rbCL – P.r. – coding region	CGYTG.YTATGATATTGAATTAGTTCTCGTGAAGATAACCAATACATCCTTATATTC
Consensus	TAYCMATTAGAYTTATTYGNAGAGGTYCTGTAYYAAATGCTTACTCTATMRITG
rbCL – P. sp. (UTEX 787)	TAYCMATTAGAYTTATTYGNAGAGGTYCTGTAYYAAATGCTTACTCTATMRITG
rbCL – P.r. – coding region	TAYCMATTAGAYTTATTYGNAGAGGTYCTGTAYYAAATGCTTACTCTATMRITG
Consensus	AAVGT.ATYGGRTTYAAGCTCTCTRYGTFTANGSYTAGAAGATCTNRCYCTACDN
rbCL – P. sp. (UTEX 787)	AAVGT.ATYGGRTTYAAGCTCTCTRYGTFTANGSYTAGAAGATCTNRCYCTACDN
rbCL – P.r. – coding region	AAVGT.ATYGGRTTYAAGCTCTCTRYGTFTANGSYTAGAAGATCTNRCYCTACDN
Consensus	GCCTTTCCTAAACCTTTTCAYGTGCTCCYCATGGGATTCAGTGAAGGKATAAGG
rbCL – P. sp. (UTEX 787)	GCCTTTCCTAAACCTTTTCAYGTGCTCCYCATGGGATTCAGTGAAGGKATAAGG
rbCL – P.r. – coding region	GCCTTTCCTAAACCTTTTCAYGTGCTCCYCATGGGATTCAGTGAAGGKATAAGG
Consensus	AATAAGTATGGACGACCTTTATTAGGTGTACAATTAACTAARTTAGGATTTCG
rbCL – P. sp. (UTEX 787)	AATAAGTATGGACGACCTTTATTAGGTGTACAATTAACTAARTTAGGATTTCG
rbCL – P.r. – coding region	AATAAGTATGGACGACCTTTATTAGGTGTACAATTAACTAARTTAGGATTTCG
Consensus	TAGAA.YTATGGGAGGCTGTTAGCAATGCTTCTGTGGTGAATTGATTCACCAAAAG
rbCL – P. sp. (UTEX 787)	TAGAA.YTATGGGAGGCTGTTAGCAATGCTTCTGTGGTGAATTGATTCACCAAAAG
rbCL – P.r. – coding region	TAGAA.YTATGGGAGGCTGTTAGCAATGCTTCTGTGGTGAATTGATTCACCAAAAG
Consensus	GATGA.AAAGCAATCTCAGCCTTTTATGAGATGCGTGATCGTTCTTTTGTGTG
rbCL – P. sp. (UTEX 787)	GATGA.AAAGCAATCTCAGCCTTTTATGAGATGCGTGATCGTTCTTTTGTGTG
rbCL – P.r. – coding region	GATGA.AAAGCAATCTCAGCCTTTTATGAGATGCGTGATCGTTCTTTTGTGTG
Consensus	TAAGCAATTTATAAGTCGCAAGCTGANNNNMAGAGTTAAAGGCAATTAYTAAATG
rbCL – P. sp. (UTEX 787)	TAAGCAATTTATAAGTCGCAAGCTGANNNNMAGAGTTAAAGGCAATTAYTAAATG
rbCL – P.r. – coding region	TAAGCAATTTATAAGTCGCAAGCTGANNNNMAGAGTTAAAGGCAATTAYTAAATG
Consensus	ACAGCAGGTACGTGTGAAGAAATGCTAAACCTGCTCAAGTTGTAAAGGATTAGGAG
rbCL – P. sp. (UTEX 787)	ACAGCAGGTACGTGTGAAGAAATGCTAAACCTGCTCAAGTTGTAAAGGATTAGGAG
rbCL – P.r. – coding region	ACAGCAGGTACGTGTGAAGAAATGCTAAACCTGCTCAAGTTGTAAAGGATTAGGAG
Consensus	CCTATTATATGACGATTTATATAACTGGTGGTTTACTGCTAATACATCTTTAGCTA
rbCL – P. sp. (UTEX 787)	CCTATTATATGACGATTTATATAACTGGTGGTTTACTGCTAATACATCTTTAGCTA
rbCL – P.r. – coding region	CCTATTATATGACGATTTATATAACTGGTGGTTTACTGCTAATACATCTTTAGCTA
Consensus	TTTTGTCGTGATCATGGATTACTTTACATATACATAGGCTATGCATGCCCTYATAG
rbCL – P. sp. (UTEX 787)	TTTTGTCGTGATCATGGATTACTTTACATATACATAGGCTATGCATGCCCTYATAG
rbCL – P.r. – coding region	TTTTGTCGTGATCATGGATTACTTTACATATACATAGGCTATGCATGCCCTYATAG
Consensus	CGCAAAAGATTCTGGNATTCATTYNSAGTTTATAGTAAGGKYTAGMATGCTCTG
rbCL – P. sp. (UTEX 787)	CGCAAAAGATTCTGGNATTCATTYNSAGTTTATAGTAAGGKYTAGMATGCTCTG
rbCL – P.r. – coding region	CGCAAAAGATTCTGGNATTCATTYNSAGTTTATAGTAAGGKYTAGMATGCTCTG
Consensus	GGAGATCATTTACACTCAGGAACAGTGGTGTAAAGCTTGAAGGTGATAGAGANTATG
rbCL – P. sp. (UTEX 787)	GGAGATCATTTACACTCAGGAACAGTGGTGTAAAGCTTGAAGGTGATAGAGANTATG
rbCL – P.r. – coding region	GGAGATCATTTACACTCAGGAACAGTGGTGTAAAGCTTGAAGGTGATAGAGANTATG
Consensus	ATAGGATTTGTAGATCTTATCCGATGAATCAATAGCTGACATCAAGGAGG
rbCL – P. sp. (UTEX 787)	ATAGGATTTGTAGATCTTATCCGATGAATCAATAGCTGACATCAAGGAGG
rbCL – P.r. – coding region	ATAGGATTTGTAGATCTTATCCGATGAATCAATAGCTGACATCAAGGAGG
Consensus	TTAYTTCAYNAAADTGGRTTTCAGGCCGNGGTGTATKCCGTTTTCAGYGGAGGT
rbCL – P. sp. (UTEX 787)	TTAYTTCAYNAAADTGGRTTTCAGGCCGNGGTGTATKCCGTTTTCAGYGGAGGT
rbCL – P.r. – coding region	TTAYTTCAYNAAADTGGRTTTCAGGCCGNGGTGTATKCCGTTTTCAGYGGAGGT
Consensus	ACATA.TYTGGAATAGCCTGCTCTTGTAGATATAATTGGTGATGATGATGATTACAG
rbCL – P. sp. (UTEX 787)	ACATA.TYTGGAATAGCCTGCTCTTGTAGATATAATTGGTGATGATGATGATTACAG
rbCL – P.r. – coding region	ACATA.TYTGGAATAGCCTGCTCTTGTAGATATAATTGGTGATGATGATGATTACAG
Consensus	TGGCGGAGGAACCTCTGGTCATCCATGGGGTAATGCTCTGGAGCTGTGGTAACCGA
rbCL – P. sp. (UTEX 787)	TGGCGGAGGAACCTCTGGTCATCCATGGGGTAATGCTCTGGAGCTGTGGTAACCGA
rbCL – P.r. – coding region	TGGCGGAGGAACCTCTGGTCATCCATGGGGTAATGCTCTGGAGCTGTGGTAACCGA
Consensus	GGCAT.TAGAAAGCTGGTATTAGCTCGTAACGCGGTAGCGATTATCACGAGATGG
rbCL – P. sp. (UTEX 787)	GGCAT.TAGAAAGCTGGTATTAGCTCGTAACGCGGTAGCGATTATCACGAGATGG
rbCL – P.r. – coding region	GGCAT.TAGAAAGCTGGTATTAGCTCGTAACGCGGTAGCGATTATCACGAGATGG
Consensus	TAATA.TTATTCGTGAAGCTACACAATTCAAGTCCAGAAATTAGCTGCCGTGCTGAAGTT
rbCL – P. sp. (UTEX 787)	TAATA.TTATTCGTGAAGCTACACAATTCAAGTCCAGAAATTAGCTGCCGTGCTGAAGTT
rbCL – P.r. – coding region	TAATA.TTATTCGTGAAGCTACACAATTCAAGTCCAGAAATTAGCTGCCGTGCTGAAGTT
Consensus	GCAAT.CAATTGAATTTAATTTCAAGCAGTAGATACAGTTTAA
rbCL – P. sp. (UTEX 787)	GCAAT.CAATTGAATTTAATTTCAAGCAGTAGATACAGTTTAA
rbCL – P.r. – coding region	GCAAT.CAATTGAATTTAATTTCAAGCAGTAGATACAGTTTAA