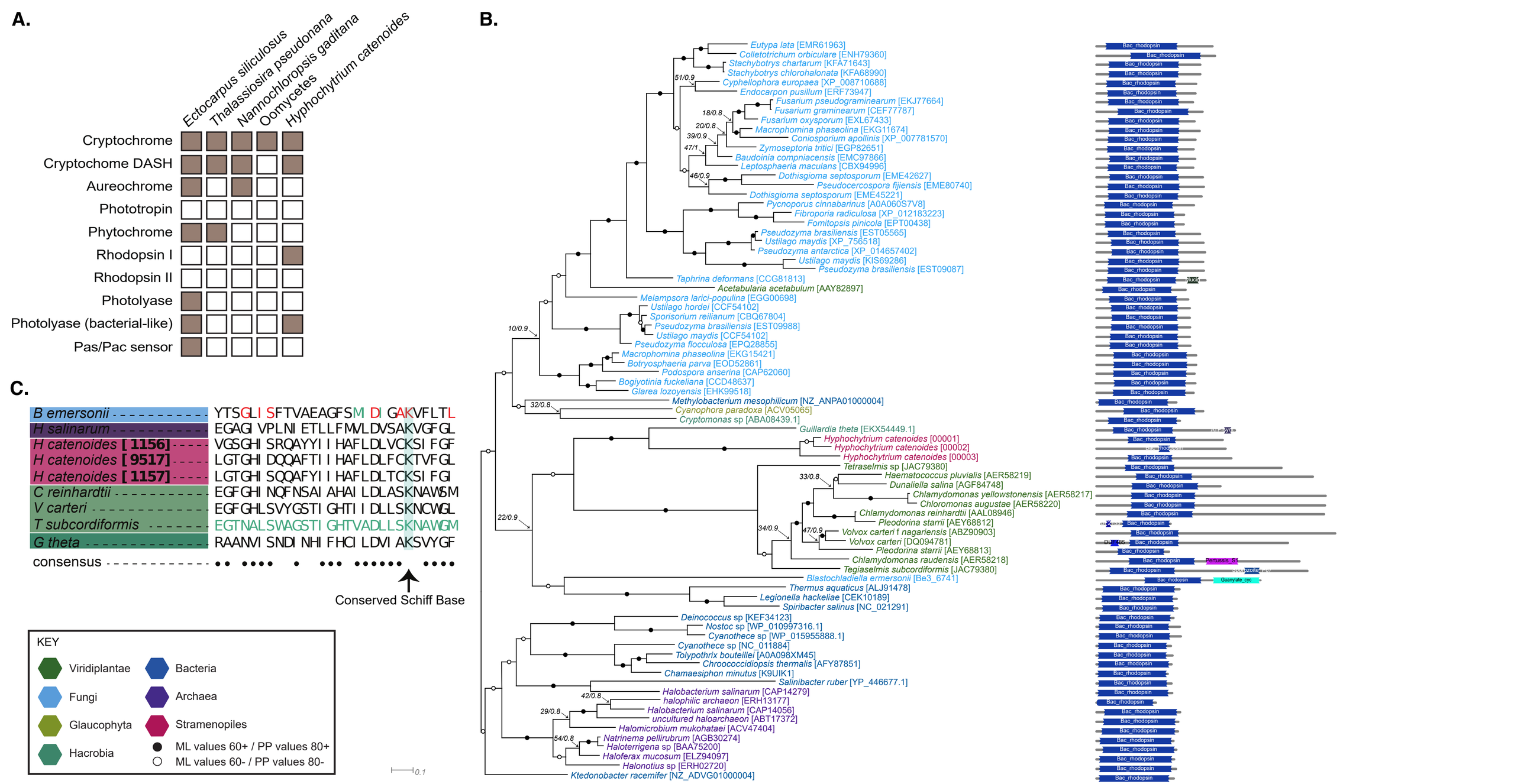
A.
Ectocarpus siliculosus
Thalassiosira pseudonana
Nannochloropsis gaditana
Oomycetes
Hyphochytrium catenoides
Cryptochrome
Cryptochome DASH
Aureochrome
Phototropin
Phytochrome
Rhodopsin I
Rhodopsin II
Photolyase
Photolyase (bacterial-like)
Pas/Pac sensor
C.
B. emersonii YTSGLI SFTVAEAGFSM DI GAKVFLTL
H. salinarum EGAGI VPLNI ETLLFMVLDVSAKVGFGL
H. catenoides [1156] VGSGHI SRQAYYI I HAFLDLVCKSI FGF
H. catenoides [9517] LGTGHI DQQAFTI I HAFLDLFCKTVFGL
H. catenoides [1157] LGTGHI SQQAFYI I HAFLDLTCKSI FGI
C. reinhardtii EGFGHI NQFNSAI AHAI LDLASKNAWSM
V. carteri EGFGHLSVYGSTI GHTI I DLLSKNCWGL
T. subcordiformis EGTNALSWAGSTI GHTVADLLSKNAWGM
G. theta RAANVI SNDI NHI FHCI LDVI AKSVYGF
consensus
Conserved Schiff Base
KEY
Viridiplantae
Bacteria
Fungi
Archaea
Glaucophyta
Stramenopiles
Hacrobia
ML values 60+ / PP values 80+
ML values 60- / PP values 80-
B.
Eutypa lata [EMR61963]
Colletotrichum orbiculare [ENH79360]
Stachybotrys chartarum [KFA71643]
Stachybotrys chlorohalonata [KFA68990]
Cyphellophora europaea [XP_008710688]
Endocarpon pusillum [ERF73947]
Fusarium pseudograminearum [EKJ77664]
Fusarium graminearum [CEF77787]
Fusarium oxysporum [EXL67433]
Macrophomina phaseolina [EKG11674]
Coniosporium apollinis [XP_007781570]
Zymoseptoria tritici [EGP82651]
Baudoinia compniacensis [EMC97866]
Leptosphaeria maculans [CBX94996]
Dothisgioma septosporum [EME42627]
Pseudocercospora fijiensis [EME80740]
Dothisgioma septosporum [EME45221]
Pycnoporus cinnabarinus [A0A060S7V8]
Fibroporia radiculosa [XP_012183223]
Fomitopsis pinicola [EPT00438]
Pseudozyma brasiliensis [EST05565]
Ustilago maydis [XP_756518]
Pseudozyma antarctica [XP_014657402]
Ustilago maydis [KIS69286]
Pseudozyma brasiliensis [EST09087]
Taphrina deformans [CCG81813]
Acetabularia acetabulum [AAY82897]
Melampsora larici-populina [EGG00698]
Ustilago hordei [CCF54102]
Sporisorium reilianum [CBQ67804]
Pseudozyma brasiliensis [EST09988]
Ustilago maydis [CCF54102]
Pseudozyma flocculosa [EPQ28855]
Macrophomina phaseolina [EKG15421]
Botryosphaeria parva [EOD52861]
Podospora anserina [CAP62060]
Bogiyotinia fuckeliana [CCD48637]
Glarea lozoyensis [EHK99518]
Methylobacterium mesophilicum [NZ_ANPA01000004]
Cyanophora paradoxa [ACV05065]
Cryptomonas sp [ABA08439.1]
Guillardia theta [EKX54449.1]
Hyphochytrium catenoides [00001]
Hyphochytrium catenoides [00002]
Hyphochytrium catenoides [00003]
Tetraselmis sp [JAC79380]
Haematococcus pluvialis [AER58219]
Dunaliella salina [AGF84748]
Chlamydomonas yellowstonensis [AER58217]
Chloromonas augustae [AER58220]
Chlamydomonas reinhardtii [AAL08946]
Pleodorina starrii [AEY68812]
Volvox carteri f nagariensis [ABZ90903]
Volvox carteri [DQ094781]
Pleodorina starrii [AEY68813]
Chlamydomonas raudensis [AER58218]
Tegiaselmis subcordiformis [JAC79380]
Blastochladiella ermersonii [Be3_6741]
Thermus aquaticus [ALJ91478]
Legionella hackeliae [CEK10189]
Spiribacter salinus [NC_021291]
Deinococcus sp [KEF34123]
Nostoc sp [WP_010997316.1]
Cyanothece sp [WP_015955888.1]
Cyanothece sp [NC_011884]
Tolypothrix bouteillei [A0A098XM45]
Chroococcidiopsis thermalis [AFY87851]
Chamaesiphon minutus [K9UIK1]
Salinibacter ruber [YP_446677.1]
Halobacterium salinarum [CAP14279]
halophilic archaeon [ERH13177]
Halobacterium salinarum [CAP14056]
uncultured haloarchaeon [ABT17372]
Halomicrobium mukohataei [ACV47404]
Natrinema pellirubrum [AGB30274]
Haloterrigena sp [BAA75200]
Haloferax mucosum [ELZ94097]
Halonotius sp [ERH02720]
Ktedonobacter racemifer [NZ_ADVG01000004]
51/0.9
18/0.8
20/0.8
39/0.9
47/1
46/0.9
10/0.9
32/0.8
22/0.9
33/0.8
34/0.9
47/0.9
42/0.8
29/0.8
54/0.8
0.1
Bac_rhodopsin
Mucin
Pertussis_S1
Guanylate_cyc