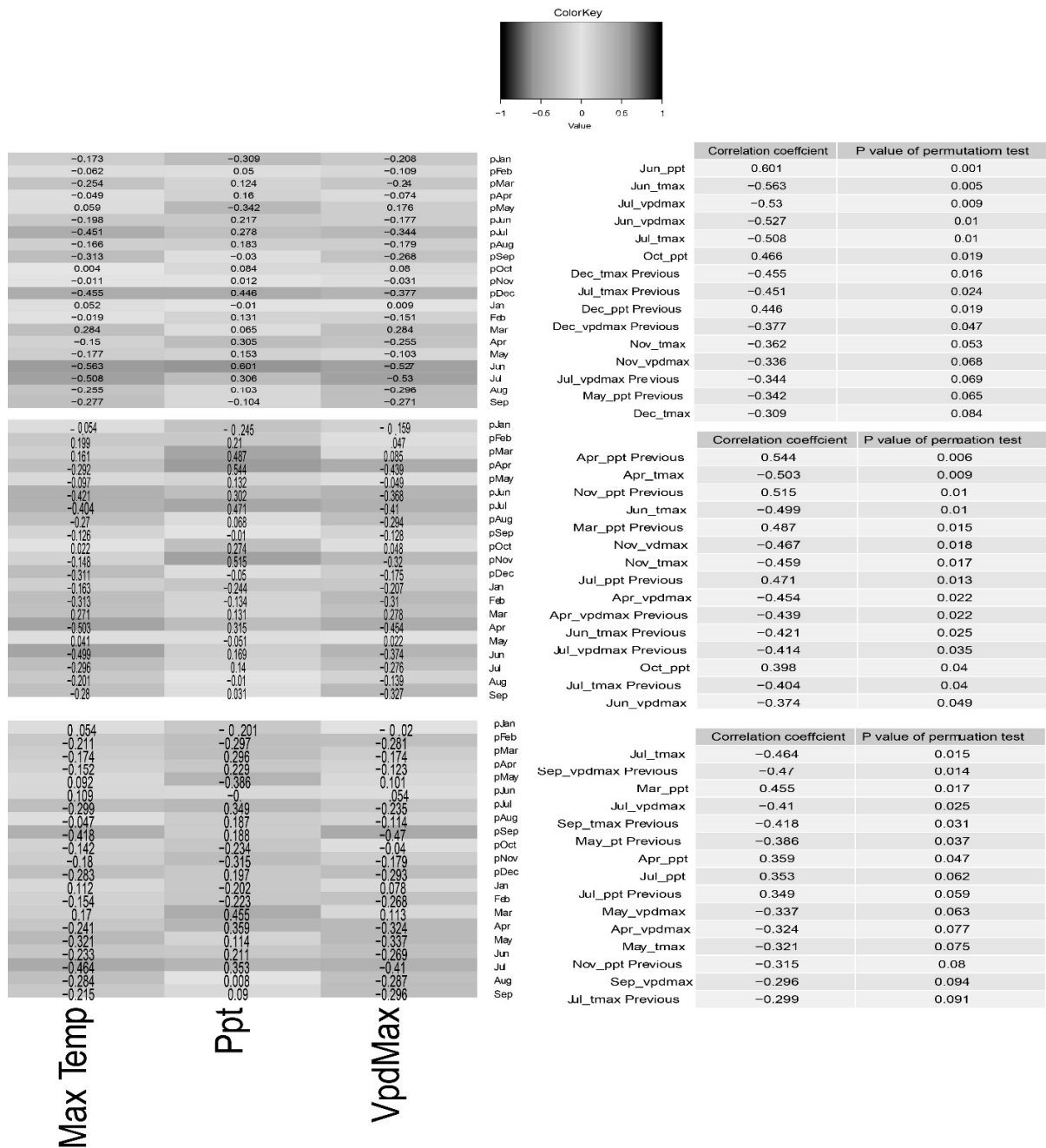**Supp. Fig. 1.** Three paneled-figure showing change in K_r, MVA, and vessel number as a function of age in both a linear (left) and exponential (right) fit. Fitting an exponential curve on this relationship explained more variance for K_r and MVA, while a linear fit explained slightly more variance for vessel number. The above curves were used to determine which type of age detrending was to be applied to the raw values of Kh, MVA, and number of vessels for the 11 year time-series for each disc.

ColorKey

Value: −1   −0.5   0   0.5   1

Heatmap — Kr (Max Temp / Ppt / VpdMax)

Month	Max Temp	Ppt	VpdMax
pJan	-0.173	-0.309	-0.208
pFeb	-0.062	0.05	-0.109
pMar	-0.254	0.124	-0.24
pApr	-0.049	0.16	-0.074
pMay	0.059	-0.342	0.176
pJun	-0.198	0.217	-0.177
pJul	-0.451	0.278	-0.344
pAug	-0.166	0.183	-0.179
pSep	-0.313	-0.03	-0.268
pOct	0.004	0.084	0.08
pNov	-0.011	0.012	-0.031
pDec	-0.455	0.446	-0.377
Jan	0.052	-0.01	0.009
Feb	-0.019	0.131	-0.151
Mar	0.284	0.065	0.284
Apr	-0.15	0.305	-0.255
May	-0.177	0.153	-0.103
Jun	-0.563	0.601	-0.527
Jul	-0.508	0.306	-0.53
Aug	-0.255	0.103	-0.296
Sep	-0.277	-0.104	-0.271

Heatmap — MVA (Max Temp / Ppt / VpdMax)

Month	Max Temp	Ppt	VpdMax
pJan	-0.054	-0.245	-0.159
pFeb	0.199	0.21	.047
pMar	0.161	0.487	0.085
pApr	-0.292	0.544	-0.439
pMay	-0.097	0.132	-0.049
pJun	-0.421	0.302	-0.368
pJul	-0.404	0.471	-0.41
pAug	-0.27	0.068	-0.294
pSep	-0.126	-0.01	-0.128
pOct	0.022	0.274	0.048
pNov	-0.148	0.515	-0.32
pDec	-0.311	-0.05	-0.175
Jan	-0.163	-0.244	-0.207
Feb	-0.313	-0.134	-0.31
Mar	0.271	0.131	0.278
Apr	-0.503	0.315	-0.454
May	0.041	-0.051	0.022
Jun	-0.499	0.169	-0.374
Jul	-0.296	0.14	-0.276
Aug	-0.201	-0.01	-0.139
Sep	-0.28	0.031	-0.327

Heatmap — Vessel number (Max Temp / Ppt / VpdMax)

Month	Max Temp	Ppt	VpdMax
pJan	0.054	-0.201	-0.02
pFeb	-0.211	-0.297	-0.281
pMar	-0.174	0.296	-0.174
pApr	-0.152	0.229	-0.123
pMay	0.092	-0.386	0.101
pJun	0.109	-0	.054
pJul	-0.299	0.349	-0.235
pAug	-0.047	0.187	-0.114
pSep	0.418	0.188	-0.47
pOct	-0.142	-0.234	-0.04
pNov	-0.18	-0.315	-0.179
pDec	-0.283	0.197	-0.293
Jan	0.112	-0.202	0.078
Feb	-0.154	-0.223	-0.268
Mar	0.17	0.455	0.113
Apr	-0.241	0.359	-0.324
May	-0.321	0.114	-0.337
Jun	-0.233	0.211	-0.269
Jul	-0.464	0.353	-0.41
Aug	-0.284	0.008	-0.287
Sep	-0.215	0.09	-0.296

Max Temp | Ppt | VpdMax

Table — Kr

	Correlation coeffcient	P value of permutatiom test
Jun_ppt	0.601	0.001
Jun_tmax	-0.563	0.005
Jul_vpdmax	-0.53	0.009
Jun_vpdmax	-0.527	0.01
Jul_tmax	-0.508	0.01
Oct_ppt	0.466	0.019
Dec_tmax Previous	-0.455	0.016
Jul_tmax Previous	-0.451	0.024
Dec_ppt Previous	0.446	0.019
Dec_vpdmax Previous	-0.377	0.047
Nov_tmax	-0.362	0.053
Nov_vpdmax	-0.336	0.068
Jul_vpdmax Previous	-0.344	0.069
May_ppt Previous	-0.342	0.065
Dec_tmax	-0.309	0.084

Table — MVA

	Correlation coeffcient	P value of permation test
Apr_ppt Previous	0.544	0.006
Apr_tmax	-0.503	0.009
Nov_ppt Previous	0.515	0.01
Jun_tmax	-0.499	0.01
Mar_ppt Previous	0.487	0.015
Nov_vdmax	-0.467	0.018
Nov_tmax	-0.459	0.017
Jul_ppt Previous	0.471	0.013
Apr_vpdmax	-0.454	0.022
Apr_vpdmax Previous	-0.439	0.022
Jun_tmax Previous	-0.421	0.025
Jul_vpdmax Previous	-0.414	0.035
Oct_ppt	0.398	0.04
Jul_tmax Previous	-0.404	0.04
Jun_vpdmax	-0.374	0.049

Table — Vessel number

	Correlation coeffcient	P value of permuation test
Jul_tmax	-0.464	0.015
Sep_vpdmax Previous	-0.47	0.014
Mar_ppt	0.455	0.017
Jul_vpdmax	-0.41	0.025
Sep_tmax Previous	-0.418	0.031
May_pt Previous	-0.386	0.037
Apr_ppt	0.359	0.047
Jul_ppt	0.353	0.062
Jul_ppt Previous	0.349	0.059
May_vpdmax	-0.337	0.063
Apr_vpdmax	-0.324	0.077
May_tmax	-0.321	0.075
Nov_ppt Previous	-0.315	0.08
Sep_vpdmax	-0.296	0.094
Jul_tmax Previous	-0.299	0.091

Supp. Fig. 2. Three paneled-figure showing heatmaps and associated tables for monthly climate correlation coefficients and their associated *p* values (derived from bootstrapping, only the top 15 correlations) for potential hydraulic conductivity K_r (top), mean vessel area MVA, and vessel number (bottom). Max Temp (tmax), precipitation sum for each month in cm (ppt), and maximum daily vapor pressure average for each month (VpdMax) for each month within the 24 month period were correlated with the age-detrended "transect" values for K_r, MVA, and vessel number. Heatmaps only show through the current Sep, since we did not consider the correlations after this monthly period, though these correlation coefficients may still be found in the accompanying table if the relationship is one of the top 15 correlations.