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Supplement of

The SahulCHAR collection: a palaeofire database for Australia, New Guinea, and New Zealand

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Table S1. Sites included in the SahulCHAR database and their source. Data was obtained through either - original data contributed directly by authors;, data contained in paleofire databases (GPD, Neotoma and PANGAEA); original data available in published supplementary materials; and records digitized from published diagrams. CHAR NOTES indicates full source and modifications to database records.

OBSID	CHAR STATUS	CHAR SOURCE	CHAR NOTES
Aguai Ramata_core1_char1	Unchanged	paleofire database	Data are from the GPD
Aire Crossing_core1_char1	Added	digitized	Data are from a written source
Aire Crossing_core1_char2	Unchanged	paleofire database	Data are from the GPD
Ajkwa Estuary core 3_char1	Unchanged	paleofire database	Data are from the GPD
Ajkwa Estuary core 4_char1	Unchanged	paleofire database	Data are from the GPD
Ajkwa Estuary core 5_char1	Unchanged	paleofire database	Data are from the GPD
Allom Lake_core1_char1	Unchanged	paleofire database	Data are from the GPD
Allom Lake_core1_char2	Added	digitized	Data are from a written source
Allom Lake_core1_char3	Added	digitized	Data are from a written source
Anggi Lake_core1_char1	Unchanged	paleofire database	Data are from the GPD
Apple Orchard Lagoon_core1_char1	Modified	paleofire database	Data are from the GPD, with corrections to depths
Argan Swamp_core1_char1	Author	author	GPD data NOT USED for this site. Data are author-submitted
Argan Swamp_core1_char2	Author	author	GPD data NOT USED for this site. Data are author-submitted
Argan Swamp_core1_char3	Author	author	GPD data NOT USED for this site. Data are author-submitted
Badu 15_core1_char1	Author	author	GPD data NOT USED for this site. Data are author-submitted
Badu 15_core1_char2	Author	author	GPD data NOT USED for this site. Data are author-submitted
Badu 15_core1_char3	Author	author	GPD data NOT USED for this site. Data are author-submitted
Bar 20_core1_char1	Author	author	GPD data NOT USED for this site. Data are author-submitted
Bar 20_core1_char2	Author	author	GPD data NOT USED for this site. Data are author-submitted
Bar 20_core1_char3	Author	author	GPD data NOT USED for this site. Data are author-submitted
Bega Swamp_core1_char1	Unchanged	paleofire database	Data are from the GPD
Big Reedy Lagoon_core1_char1	Modified	paleofire database	Data are from the GPD, with corrections to depths
Big Willum BW01_char1	Author	author	Data are author-submitted
Big Willum BW01_char2	Author	author	Data are author-submitted
Big Willum BW01_char3	Author	author	Data are author-submitted
Big Willum BW03_char1	Author	author	Data are author-submitted
Big Willum BW03_char2	Author	author	Data are author-submitted
Black Swamp_core1_char1	Modified	paleofire database	Data are from the GPD, with corrected values using a missing multiplier
Blue Lake Kosciuzko_core1_char1	Unchanged	paleofire database	Data are from the GPD
Blundells Flat_core1_char1	Unchanged	paleofire database	Data are from the GPD

Bobundara Swamp pollen core_char1	Unchanged	paleofire database	Data are from the GPD
Boggy Swamp_core1_char1	Modified	paleofire database	Data are from the GPD, with corrected values using a missing multiplier
Boigu Gawat Swamp 1 core 2_char1	Author	author	GPD data NOT USED for this site. Data are author-submitted
Boigu Gawat Swamp 1 core 2_char2	Author	author	GPD data NOT USED for this site. Data are author-submitted
Boigu Gawat Swamp 1 core 2_char3	Author	author	GPD data NOT USED for this site. Data are author-submitted
Boigu Gawat Swamp 2 core 2_char1	Author	author	GPD data NOT USED for this site. Data are author-submitted
Boigu Gawat Swamp 2 core 2_char2	Author	author	GPD data NOT USED for this site. Data are author-submitted
Boigu Gawat Swamp 2 core 2_char3	Author	author	GPD data NOT USED for this site. Data are author-submitted
Bolin Billabong Core 1 Core 4 composite_char1	Unchanged	paleofire database	Data are from the GPD
Bondi Lake centre core_char1	Added	digitized	Data are from a written source
Bondi Lake centre core_char2	Unchanged	paleofire database	Data are from the GPD
Bondi Lake south core_char1	Added	digitized	Data are from a written source
Bondi Lake south core_char2	Unchanged	paleofire database	Data are from the GPD
Boulder Flat_core1_char1	Unchanged	paleofire database	Data are from the GPD
Breadalbane SE_core1_char1	Unchanged	paleofire database	Data are from the GPD
Bridgewater Lake Core A_char1	Added	digitized	Data are from a written source
Bridgewater Lake Core B_char1	Modified	paleofire database	Data are from the GPD, with a correction to CHARMEASURE
Bridgewater Lake in situ beach peat_char1	Added	digitized	Data are from a written source
Bridgewater Lake not in situ beach peat_char1	Added	digitized	Data are from a written source
Brooks Ridge Fen_core1_char1	Modified	paleofire database	Data are from the GPD, with a correction to CHARMEASURE, CHARMAX and CHARMIN
Bumpy Lagoon_core1_char1	Modified	paleofire database	Data are from the GPD, with corrections to depths
Burraga Swamp centre core_char1	Unchanged	paleofire database	Data are from the GPD
Burraga Swamp edge core_char1	Unchanged	paleofire database	Data are from the GPD
Burralow Creek Swamp_core1_char1	Unchanged	paleofire database	Data are from the GPD
Butchers Swamp_core1_char1	Modified	paleofire database	Data are from the GPD, with corrected values using a missing multiplier
Buxton_core1_char1	Unchanged	paleofire database	Data are from the GPD
BWIL2_char1	Author	author	GPD data NOT USED for this site. Data are author-submitted
BWIL2_char2	Author	author	Data are author-submitted
BWIL2_char3	Author	author	Data are author-submitted
BWIL2_char4	Author	author	Data are author-submitted
BWIL2_char5	Author	author	Data are author-submitted
Byenup Lagoon Site 1_core1_char1	Unchanged	paleofire database	Data are from the GPD
Byenup Lagoon Site 2_core1_char1	Unchanged	paleofire database	Data are from the GPD

Caledonia Fen 1997 2001 composite_char1	Unchanged	paleofire database	Data are from the GPD
Caledonia Fen 1997 2001 composite_char2	Added	digitized	Data are from a written source
Caledonia Fen 2009 core_char1	Added	digitized	Data are from a written source
Caledonia Fen 2009 core_char2	Added	digitized	Data are from a written source
Cameron's Lagoon_core1_char1	Unchanged	paleofire database	Data are from the GPD
Chapple Vale Swamp composite core_char1	Modified	paleofire database	Data are from the GPD, with multiplier applied to remove it from measurement units
Club Lake CL4_char1	Added	digitized	Data are from a written source
Club Lake CL4_char2	Added	digitized	Data are from a written source
Club Lake western basin_core1_char1	Added	digitized	Data are from a written source
Club Lake western basin_core1_char2	Unchanged	paleofire database	Data are from the GPD
Cobrico Swamp edge_core1_char1	Unchanged	paleofire database	Data are from the GPD
Cotter Source Bog Centre Core A_char1	Unchanged	paleofire database	Data are from the GPD
Cotter Source Bog Margin CSBM_char1	Unchanged	paleofire database	Data are from the GPD
Crystal Lagoon_core1_char1		paleofire database	Data are from Neotoma
Crystal Lagoon_core1_char2		paleofire database	Data are from Neotoma
Cuddie Springs_core1_char1	Unchanged	paleofire database	Data are from the GPD
Dalhousie Springs_core1_char1	Unchanged	paleofire database	Data are from the GPD
Dove Lake_core1_char1	Unchanged	paleofire database	Data are from the GPD
DP1_char1	Added	digitized	Data are from a written source
DP2_char1	Added	digitized	Data are from a written source
DP3_char1	Added	digitized	Data are from a written source
DP3_char2	Unchanged	paleofire database	Data are from the GPD, with depths converted to metres
Dublin Bog Core 8_char1	Modified	paleofire database	Data are from the GPD, with corrections to CHARMEASURE and depths
Egg Lagoon EL10 EL11 composite_char1	Unchanged	paleofire database	Data are from the GPD
Fred South Swamp_core1_char1	Added	digitized	Data are from a written source
Fred South Swamp_core1_char2	Unchanged	paleofire database	Data are from the GPD
Gallahers Swamp_core1_char1	Unchanged	paleofire database	Data are from the GPD
Galway Tarn 0111 0505 composite_char1	Unchanged	paleofire database	Data are from the GPD
GC-17_char1	Unchanged	paleofire database	Data are from the GPD
Gemco LG2_char1	Modified	paleofire database	Data from GPD, with correction to units
Gemco LG2_char2	Added	digitized	Not in GPD
Ginini Flats_core1_char1	Unchanged	paleofire database	Data are from the GPD
Gooch's Swamp GCR_char1	Unchanged	paleofire database	Data are from the GPD

Gooch's Swamp GCR_char2	Added	digitized	Not in GPD
Green Lagoon_core1_char1	Modified	paleofire database	Data are from the GPD, with corrections to depths
Greens Bush_core1_char1	Unchanged	paleofire database	Data are from the GPD
Grey Pole Swamp Broughton Island_core1_char1	Unchanged	paleofire database	Data are from the GPD
Griffith Swamp_core1_char1	Unchanged	paleofire database	Data are from the GPD
Haeapugua Basin core H6_char1	Unchanged	paleofire database	Data are from the GPD
Haeapugua Basin core H6_char2	Added	digitized	Data are from a written source
Henty Bridge_core1_char1	Unchanged	paleofire database	Data are from the GPD
Hogan's Billabong core a_char1	Modified	paleofire database	Data are from the GPD, with THICKNESS added
Hopwood's Lagoon_core1_char1	Unchanged	paleofire database	Data are from the GPD
Howes Waterhole Swamp_core1_char1	Unchanged	paleofire database	Data are from the GPD
Ijomba Bog_core1_char1	Unchanged	paleofire database	Data are from the GPD
Ijomba Bog_core1_char2	Added	digitized	Data are from a written source
Ingar Swamp_core1_char1	Unchanged	paleofire database	Data are from the GPD
Jibbon Lagoon Core 3_char1	Modified	paleofire database	Data are from the GPD, with corrections to CHARMAX and CHARMIN
Kaipo_core1_char1	Unchanged	paleofire database	Data are from the GPD
Katoomba Swamp Core 1_char1	Unchanged	paleofire database	Data are from the GPD
Katoomba Swamp Core 2_char1	Added	digitized	Data are from a written source
Kelela Swamp_core1_char1	Unchanged	paleofire database	Data are from the GPD
Killalea Lagoon centre core_char1	Unchanged	paleofire database	Data are from the GPD
Kings Tableland Swamp_core1_char1	Unchanged	paleofire database	Data are from the GPD
Kings Tableland Swamp_short core_char1	Unchanged	paleofire database	Data are from the GPD
Kings Waterhole_core1_char1	Unchanged	paleofire database	Data are from the GPD
Kohuora Core A Core B composite_char1	Modified	paleofire database	Data are from the GPD, with CHARMIN added
Kosipe KPA_char1	Unchanged	paleofire database	Data are from the GPD
Kosipe KPC_char1	Unchanged	paleofire database	Data are from the GPD
Kosipe KPE_char1	Added	digitized	Data are from a written source
Kurnell Fen Core 1_char1	Unchanged	paleofire database	Data are from the GPD
Kurnell Fen Core 2	Added	digitized	Data are from a written source
Lake Baraba_core1_char1	Modified	paleofire database	Data from GPD, with depths added from written source
Lake Condah core 1b_char1	Added	digitized	Data are from a written source
Lake Condah_core1_char1	Unchanged	paleofire database	Data are from the GPD

Lake Coomboo_core1_char1	Unchanged	paleofire database	Data are from the GPD
Lake Couridjah_core1_char1	Unchanged	paleofire database	Data are from the GPD
Lake Curlip_core1_char1	Unchanged	paleofire database	Data are from the GPD
Lake Euramoo_core1_char1	Unchanged	paleofire database	Data are from the GPD
Lake Euramoo_core1_char2	Added	digitized	Data are from a written source
Lake Eyre Core LE 82/2_char1	Unchanged	paleofire database	Data are from the GPD
Lake Eyre Core LE 82/2_char2	Added	digitized	Data are from a written source
Lake Flannigan King Island Core LF_char1	Unchanged	paleofire database	Data are from the GPD
Lake Frome Core LF 82/2_char1	Modified	paleofire database	Data are from the GPD, with a correction to CHARMEASURE
Lake Habbema_core1_char1	Modified	paleofire database	Data are from the GPD, with CHARMEASURE added
Lake Hordern centre core B_char1	Added	digitized	Data are from a written source
Lake Hordern main core A_char1	Unchanged	paleofire database	Data are from the GPD
Lake Hordorli_core1_char1	Unchanged	paleofire database	Data are from the GPD
Lake Johnston Core JA_char1	Modified	paleofire database	Data are from the GPD, with multiplier applied to remove it from measurement units
Lake Mountain_core1_char1	Added	digitized	GPD data for this site NOT USED due to errors. Data are from a written source
Lake Selina_core1_char1	Unchanged	paleofire database	Data are from the GPD
Lake Surprise_core1_char1	Author	author	Data are author-submitted
Lake Surprise_core1_char2	Modified	paleofire database	Data are from the GPD, with multiplier applied to remove it from measurement units
Lake Tyrrell Site 1_core1_char1	Unchanged	paleofire database	Data are from the GPD
Lake Tyrrell Site 2_core1_char1	Unchanged	paleofire database	Data are from the GPD
Lake Wangoom LW87 core_char1	Unchanged	paleofire database	Data are from the GPD
Lake Wangoom_core1_char1	Added	digitized	Data are from a written source
Lake Wanum LW II_char1	Added	digitized	Data are from a written source
Lake Wanum_core1_char1	Unchanged	paleofire database	Data are from the GPD
Laravita Tarn_core1_char1	Modified	paleofire database	Data are from the GPD, with CHARMIN added
Lashmar's Lagoon_core1_char1	Added	digitized	Data are from a written source
LC2_char1	Added	digitized	Data are from a written source
LC2_char2	Added	digitized	Data are from a written source
LC2_char3	Author	author	Data are author-submitted
LL10_char1	Added	digitized	Data are from a written source
LL10_char2	Unchanged	paleofire database	Data are from the GPD
LL15_char1	Added	digitized	Data are from a written source
LL15_char2	Unchanged	paleofire database	Data are from the GPD
Loch Sport Swamp_core1_char1	Modified	paleofire database	Data are from the GPD, with multiplier applied to remove it from measurement units

Long Swamp Core A_char1	Unchanged	paleofire database	Data are from the GPD
Lower Lake Hogayaku HGL core_char1	Unchanged	paleofire database	Data are from the GPD
Lynchs Crater 2007 composite_char1	Modified	paleofire database	Data are from the GPD, with corrections to CHARMETHOD and CHARMIN
Lynchs Crater Holocene Core 2_char1	Added	digitized	Data are from a written source
Main Lake Tower Hill_core1_char1	Unchanged	paleofire database	Data are from the GPD
Main Lake Tower Hill_core2_char1	Author	author	Data are author-submitted
MAR2_char1	Author	author	GPD data NOT USED for this site. Data are author-submitted
MAR2_char2	Author	author	Data are author-submitted
MAR2_char3	Author	author	Data are author-submitted
MAR2_char4	Author	author	Data are author-submitted
MAR2_char5	Author	author	Data are author-submitted
MAR2_char6	Author	author	Data are author-submitted
Marton Swamp_core1_char1	Unchanged	paleofire database	Data are from the GPD
McKenzie Road Bog_core1_char1	Unchanged	paleofire database	Data are from the GPD
MD03-2067_char1		paleofire database	Data are from PANGAEA
Micalong Swamp Core MS3_char1	Unchanged	paleofire database	Data are from the GPD
Micalong Swamp Core MS3_char2	Added	digitized	Data are from a written source
Middle Patriarch Swamp_core1_char1	Modified	paleofire database	Data are from the GPD, with a correction to CHARMEASURE
Mill Creek cores 1, 2, 4 composite_char1	Unchanged	paleofire database	Data are from the GPD
Mountain Lagoon_core1_char1	Unchanged	paleofire database	Data are from the GPD
MPL12_char1	Author	author	Data are author-submitted
MPL12_char2	Author	author	Data are author-submitted
Muellers Rock_core1_char1	Unchanged	paleofire database	Data are from the GPD
Mulloon_core1_char1	Unchanged	paleofire database	Data are from the GPD
Native Companion Lagoon NCL1_char1	Author	author	GPD data NOT USED for this site. Data are author-submitted
Neon ANB2_char1	Modified	paleofire database	Data are from the GPD, with CHARMIN added
Newall Creek_core1_char1	Unchanged	paleofire database	Data are from the GPD
Newnes Swamp_core1_char1	Modified	paleofire database	Data are from the GPD, with a correction to CHARMEASURE
Noreikora Swamp core NORI/A/18_char1	Unchanged	paleofire database	Data are from the GPD
Noreikora Swamp core NORI/A/18_char2	Added	digitized	Data are from a written source
North Torbreck_core1_char1	Unchanged	paleofire database	Data are from the GPD
Northwest Crater Tower Hill 2008 core_char1	Added	digitized	Not in GPD
Northwest Crater Tower Hill 2008 core_char2	Added	digitized	Not in GPD

Northwest Crater Tower Hill_core1_char1	Unchanged	paleofire database	Data are from the GPD
Notts Swamp_core1_char1	Unchanged	paleofire database	Data are from the GPD
Nursery Swamp_core1_char1	Unchanged	paleofire database	Data are from the GPD
Oaks Creek D-section Missen composite_char1	Unchanged	paleofire database	Data are from the GPD
ODP 820_char1_1 to ODP 820_char1_82	Author	author	Data from author-submitted spreadsheet
ODP 820_char1_83 to ODP 820_char1_111	Unchanged	paleofire database	Data from GPD, matching author-submitted data
ODP 820_char2	Unchanged	paleofire database	Data from GPD, matching author-submitted data
OKA1 OKA913 composite_char1	Modified	paleofire database	Data are from the GPD, with corrections to CHARMETHOD and CHARMEASURE
Penrith Lakes Drill core_char1	Modified	paleofire database	Data are from the GPD, with a correction to CHARMETHOD
Penrith Lakes Hand core_char1	Modified	paleofire database	Data are from the GPD, with a correction to CHARMETHOD
Penrith Lakes Trench_char1	Modified	paleofire database	Data are from the GPD, with a correction to CHARMETHOD
Piano Point Lagoon_core1_char1	Modified	paleofire database	Data are from the GPD, with corrections to depths
Pine Camp_core1_char1	Modified	paleofire database	Data are from the GPD, with a correction to CHARMEASURE
Poets Hill Core 1_char1	Unchanged	paleofire database	Data are from the GPD
Poley Creek_core1_char1	Unchanged	paleofire database	Data are from the GPD
Powelltown_core1_char1	Unchanged	paleofire database	Data are from the GPD
QS-Monolith_char1	Unchanged	paleofire database	Data are from the GPD
Quambie Lagoon_core1_char1	Modified	paleofire database	Data are from the GPD, with CHARMAX and CHARMIN corrected
Quambie Lagoon_core1_char2	Modified	paleofire database	Data are from the GPD, with CHARMAX and CHARMIN corrected
Quambie Lagoon_core1_char3	Modified	paleofire database	Data are from the GPD, with CHARMAX and CHARMIN corrected
Queens Swamp Core QS 3_char1	Unchanged	paleofire database	Data are from the GPD
Redhead Lagoon E12b_char1	Added	author	GPD data for this site NOT USED due to errors. Data are from a written source
Redhead Lagoon E12b_char2	Added	author	GPD data for this site NOT USED due to errors. Data are from a written source
Redhead Lagoon E12b_char3	Added	author	GPD data for this site NOT USED due to errors. Data are from a written source
Redhead Lagoon E12c_char1	Added	author	GPD data for this site NOT USED due to errors. Data are from a written source
Redhead Lagoon F4c_char1	Added	author	GPD data for this site NOT USED due to errors. Data are from a written source
Ringarooma Humus Site 1_core1_char1	Unchanged	paleofire database	Data are from the GPD
Ringarooma Humus Site 2_core1_char1	Unchanged	paleofire database	Data are from the GPD
Ringarooma River Site 1_core1_char1	Unchanged	paleofire database	Data are from the GPD
Ringarooma River Site 2_core1_char1	Unchanged	paleofire database	Data are from the GPD

RNX-A RNX-B composite_char1	Modified	paleofire database	Data are from the GPD, with CHARMEASURE added
Rock Arch Swamp_core1_char1	Unchanged	paleofire database	Data are from the GPD
Rotten Swamp 1984 core_char1	Unchanged	paleofire database	Data are from the GPD
Rotten Swamp Core 4_char1	Unchanged	paleofire database	Data are from the GPD
Ryans Swamp_core1_char1	Unchanged	paleofire database	Data are from the GPD
SAN1_char1	Author	author	GPD data NOT USED for this site. Data are author-submitted
SAN1_char2	Author	author	Data are author-submitted
SAN1_char3	Author	author	Data are author-submitted
SAN1_char4	Author	author	Data are author-submitted
SAN1_char5	Author	author	Data are author-submitted
Sapphire Swamp_core1_char1	Unchanged	paleofire database	Data are from the GPD
Snobs Creek_core1_char1	Added	digitized	GPD data for this site NOT USED due to errors. Data are from a written source
Snowy Flats_core1_char1	Unchanged	paleofire database	Data are from the GPD
Solomons Jewel Lake_core1_char1	Unchanged	paleofire database	Data are from the GPD
Sondambile_core1_char1	Unchanged	paleofire database	Data are from the GPD
South Salvation Creek Swamp_core1_char1	Modified	paleofire database	Data are from the GPD, with multiplier applied to remove it from measurement units
South Salvation Creek Swamp_core1_char2	Added	digitized	Data are from a written source
Stockyard Swamp Hunter Island_core1_char1	Unchanged	paleofire database	Data are from the GPD
Storm Creek_core1_char1	Added	digitized	Not in GPD
Storm Creek_core1_char2	Unchanged	paleofire database	Data from GPD
Sundown Swamp_core1_char1	Modified	paleofire database	Data are from the GPD, with CHARMIN added
Supulah Hill North Pond 1991 core_char1	Modified	paleofire database	Data are from the GPD, with corrections to CHARMEASURE
Tadpole Swamp_core1_char1	Modified	paleofire database	Data are from the GPD, with corrected values using a missing multiplier and a correction to depths
Talita Kupai core 1_char1	Author	author	GPD data NOT USED for this site. Data are author-submitted
Talita Kupai core 1_char2	Author	author	GPD data NOT USED for this site. Data are author-submitted
Talita Kupai core 1_char3	Author	author	GPD data NOT USED for this site. Data are author-submitted
Talita Kupai core 2_char1	Author	author	GPD data NOT USED for this site. Data are author-submitted
TAS1102_char1	Modified	paleofire database	Data are from the GPD, with corrections to depths and CHARMEASURE
TAS1104_char1 to TAS1104_char1_44	Modified	paleofire database	Data are from the GPD, with corrections to depth and CHARMEASURE
TAS1104_char1_44 to TAS1104_char1_329	Author	author	Data are author-submitted
TAS1106_char1	Modified	paleofire database	Data are from the GPD, with corrections to depths and CHARMEASURE
TAS1107_char1	Modified	paleofire database	Data are from the GPD, with corrections to depths and CHARMEASURE

TAS1108 SC LCA composite_char1	Unchanged	paleofire database	Data are from the GPD, with corrections to depths and CHARMEASURE
TAS1108 SC LCA composite_char2	Added	digitized	Data are from a written source
TAS1110_char1	Modified	paleofire database	Data are from the GPD, with corrections to depths and CHARMEASURE
TAS1203_char1	Modified	paleofire database	Data are from the GPD, with corrections to depths and CHARMEASURE
TAS1205_char1	Modified	paleofire database	Data are from the GPD, with corrections to depths and CHARMEASURE
TAS1207_char1	Modified	paleofire database	Data are from the GPD, with corrections to depths and CHARMEASURE
TAS1401 SC1 N1 composite_char1		paleofire database	Data are from Neotoma, corrected for sample volume
TAS1401 SC1 N1 composite_char2		paleofire database	Data are from Neotoma, corrected for sample volume
TAS1402_char1	Modified	paleofire database	Data are from the GPD, with a correction to depths
TAS1501_char1	Modified	paleofire database	Data are from the GPD, with corrections to depths and CHARMEASURE
TAS1503_char1	Modified	paleofire database	Data are from the GPD, with corrections to depths and CHARMEASURE
TAS1504_char1	Modified	paleofire database	Data are from the GPD, with corrections to depths and CHARMEASURE
TAS1507 SC2_char1	Modified	paleofire database	Data are from the GPD, with a correction to depths
TAS1508N1_char1	Unchanged	paleofire database	Data are from the GPD, with corrections to depths
TAS1508N1_char2	Added	digitized	Data are from a written source
Tea Tree Swamp Core DRA_char1	Modified	paleofire database	Data are from the GPD, with multiplier applied to remove it from measurement units
Tea Tree Swamp Core DRE_char1	Modified	paleofire database	Data are from the GPD, with multiplier applied to remove it from measurement units
Tea Tree Swamp Core DRN-A_char1	Modified	paleofire database	Data are from the GPD, with multiplier applied to remove it from measurement units
Tiam Point_core1_char1	Author	author	GPD data NOT USED for this site. Data are author-submitted
Tiam Point_core1_char2	Author	author	GPD data NOT USED for this site. Data are author-submitted
Tiam Point_core1_char3	Author	author	GPD data NOT USED for this site. Data are author-submitted
Tiger Snake Swamp_core1_char1	Added	digitized	GPD data for this site NOT USED due to errors. Data are from a written source
Tipoeka Estuary core 1_char1	Modified	paleofire database	Data are from the GPD, with name corrected to Tipoeka instead of Ajkwa
Tipoeka Estuary core 2_char1	Modified	paleofire database	Data are from the GPD, with name corrected to Tipoeka instead of Ajkwa
Tobacco Lagoon_core1_char1	Modified	paleofire database	Data are from the GPD, with corrections to depths
Tom Burns D-section Core TBD_char1	Added	digitized	Not in GPD
Tom Burns D-section Core TBD_char2	Unchanged	paleofire database	Data from GPD
Tom Burns Missen Core TBM_char1	Added	digitized	Not in GPD
Tom Burns Missen Core TBM_char2	Unchanged	paleofire database	Data from GPD
Tom Gregory Swamp_core1	Unchanged	paleofire database	Data are from the GPD
truwana East Coast Lagoon_core1_char1	Modified	paleofire database	Data are from the GPD, with corrections to depths

Tugupugua Basin core T1_char1	Unchanged	paleofire database	Data are from the GPD
Tugupugua Basin core T1_char2	Added	digitized	Data are from a written source
Tyrendarra Swamp_core1_char1	Added	digitized	Data are from a written source and the GPD
Tyrendarra Swamp_core1_char2	Unchanged	paleofire database	Data are from the GPD
Waikaremoana core W1_char1	Unchanged	paleofire database	Data are from the GPD
Wangil Core Site_core1_char1	Unchanged	paleofire database	Data are from the GPD
Warrananga_core1_char1	Unchanged	paleofire database	Data are from the GPD
Warrimoo Oval Swamp_core1_char1	Unchanged	paleofire database	Data are from the GPD
Waruid core 1_char1	Author	author	GPD data NOT USED for this site. Data are author-submitted
Waruid core 2_char1	Author	author	GPD data NOT USED for this site. Data are author-submitted
Waruid core 2_char2	Author	author	GPD data NOT USED for this site. Data are author-submitted
Waruid core 2_char3	Author	author	GPD data NOT USED for this site. Data are author-submitted
Wet Lagoon_core1_char1	Unchanged	paleofire database	Data are from the GPD
Whitehaven Swamp_core1_char1	Modified	paleofire database	Data are from the GPD, with a correction to CHARMEASURE
Wildes Meadow Swamp_core1_char1	Modified	paleofire database	Data are from the GPD, with multiplier applied to remove it from measurement units
Wilson Bog_core1_char1	Modified	paleofire database	Data are from the GPD, with CHARMIN added
Wingecarribee Swamp W1_char1	Added	digitized	Data are from a written source
Wingecarribee Swamp W2_char1	Unchanged	paleofire database	Data are from the GPD
Wingecarribee Swamp W2_char2	Added	digitized	Data are from a written source
Worimi Swamp L1_char1	Unchanged	paleofire database	Data are from the GPD
Worimi Swamp L2_char1	Added	digitized	Data are from a written source
Wyelangta_core1_char1	Unchanged	paleofire database	Data are from the GPD
X72/77_char1	Author	author	GPD data NOT USED for this site. Data are author-submitted
X77/50_char1	Author	author	GPD data NOT USED for this site. Data are author-submitted
X96/2_char1	Author	author	GPD data NOT USED for this site. Data are author-submitted
X96/2_char2	Added	digitized	Data are from a written source
X96/2_char3	Added	digitized	Data are from a written source
X96/2_char4	Added	digitized	Data are from a written source
X97/10_char1	Author	author	GPD data NOT USED for this site. Data are author-submitted
X97/22_char1	Author	author	Data are author-submitted
X97/22_char2	Modified	paleofire database	Data are from the GPD, converted depths to metres
Yakka Lagoon_core1_char1	Modified	paleofire database	Data are from the GPD, with corrections to depths

Yaouk Swamp_core1_char1	Unchanged	paleofire database	Data are from the GPD
Yawi Ti_core1_char1	Unchanged	paleofire database	Data are from the GPD
Zurath Islet_core1_char1	Author	author	GPD data NOT USED for this site. Data are author-submitted
Zurath Islet_core1_char2	Author	author	GPD data NOT USED for this site. Data are author-submitted
Zurath Islet_core1_char3	Author	author	GPD data NOT USED for this site. Data are author-submitted

R Code to access SahulCHAR data from OCTOPUS via Web Feature Service (WFS) and R studio.

The below demo R script fetches, via WFS, spatial layers including rich attribute data from OCTOPUS database and generates a scatter plot and an interactive map representation, respectively.

The script requires the below packages. If not installed on your machine yet, run

and you'll be all set up.

First we're going to load the required packages

```r
library(sf) # Simple features support (sf = standardized way to encode spatial vector data)
library(httr) # Generic web-service package for working with HTTP
library(tidyverse) # Workhorse collection of R packages for data sciences
library(ows4R) # Interface for OGC web-services incl. WFS
library(viridis) # Predefined colorblind-friendly color scales for R
```

OK, we're ready to go now. In the following we store the OCTOPUS WFS URL in an object. Then, using the latter, we establish a connection to OCTOPUS database.

```r
OCTOPUSdata <- "http://geoserver.octopusdata.org/geoserver/wfs" # store url in object
OCTOPUSdata_client <- WFSClient$new(OCTOPUSdata, serviceVersion = "2.0.0")
# connection to db
```

Let's see what is there, i.e. show all available layer names and titles

The above WFS request should yield the following overview

```
##                                           name
## 1                     be10-denude:crn_aus_basins
## 2                     be10-denude:crn_aus_outlets
## 3                     be10-denude:crn_int_basins
## 4                     be10-denude:crn_int_outlets
## 5                     be10-denude:crn_xxl_basins
## 6                     be10-denude:crn_xxl_outlets
## 7                   be10-denude:crn_inprep_basins
## 8                   be10-denude:crn_inprep_outlets
## 9                             be10-denude:expage
## 10 be10-denude:fossahul_webmercator_nrand_25000
## 11             be10-denude:ippd_baseline_pollen
## 12                   be10-denude:ippd_datasets
## 13                   be10-denude:sahularch_osl
## 14                   be10-denude:sahularch_c14
## 15                     be10-denude:sahularch_tl
## 16             be10-denude:sahulsed_aeolian_osl
## 17               be10-denude:sahulsed_aeolian_tl
## 18             be10-denude:sahulsed_coastal_osl
## 19               be10-denude:sahulsed_coastal_tl
## 20             be10-denude:sahulsed_fluvial_osl
## 21               be10-denude:sahulsed_fluvial_tl
## 22           be10-denude:sahulsed_lacustrine_osl
## 23            be10-denude:sahulsed_lacustrine_tl
## 24                         be10-denude:sahulchar
## 25                   be10-denude:sahulchar_units
##                                            title
## 1               CRN Australian collection: River basins
## 2               CRN Australian collection: Sample sites
```

```
## 3                              CRN Global collection: River basins
## 4                              CRN Global collection: Sample sites
## 5                                 CRN Large basins: River basins
## 6                                 CRN Large basins: Sample sites
## 7                  CRN UOW (in preparation): River basins
## 8                  CRN UOW (in preparation): Sample sites
## 9                                            ExpAge Database
## 10                                          FosSahul Database
## 11                                    IPPD (baseline pollen)
## 12                                     IPPD (datasets only)
## 13                       Sahul Archaeology: OSL collection
## 14                Sahul Archaeology: Radiocarbon collection
## 15                        Sahul Archaeology: TL collection
## 16              Sahul Sedimentary Archives: Aeolian OSL
## 17               Sahul Sedimentary Archives: Aeolian TL
## 18              Sahul Sedimentary Archives: Coastal OSL
## 19               Sahul Sedimentary Archives: Coastal TL
## 20              Sahul Sedimentary Archives: Fluvial OSL
## 21               Sahul Sedimentary Archives: Fluvial TL
## 22           Sahul Sedimentary Archives: Lacustrine OSL
## 23             Sahul Sedimentary Archives: Lacustrine TL
## 24    Sedimentary Charcoal Records: Sahul & NZ (all data)
## 25 Sedimentary Charcoal Records: Sahul & NZ (units only)
```

That's basically it. Talking to the database via WFS takes three short lines of code.

Now we will access and save to a csv file the sites contained in the SahulCHAR database.

```
url <- parse_url(OCTOPUSdata) # parse URL into list
url$query <- list(service = "wfs",
                  version = "2.0.0",
                  request = "GetFeature",
                  typename = "be10-denude:sahulchar",
                  srsName = "EPSG:900913") # set parameters for url$query

request <- build_url(url) # build a request URL from 'url' list
CHAR_AUS <- read_sf(request) # read simple features using 'request' URL.
#Takes few secs...

csvfile <- "sahulchar.csv"

write.csv(CHAR_AUS, csvfile)
```

Now that we have the data available, we define our plot parameters. We want to plot SahulCHAR site locations.

```
library(mapview) # Provides functions for quick visualisation of spatial data
mapviewOptions(fgb = FALSE)
url2 <- parse_url(OCTOPUSdata) # parse URL into list
url2$query <- list(service = "wfs",
                  version = "2.0.0",
                  request = "GetFeature",
                  typename = "be10-denude:sahulchar_units",
                  srsName = "EPSG:900913") # set parameters for url$query
```

```
request2 <- build_url(url2) # build a request URL from 'url' list
SahulCHAR <- read_sf(request2) # read simple features using 'request' URL.
#Takes few secs...

SahulCHAR <- st_set_crs(SahulCHAR, 900913) # Set Coordinate Reference System
SahulCHAR = st_transform(SahulCHAR, crs ="+proj=longlat +datum=WGS84")
# Transform geometry to geographic coordinates, WGS84

#View sites coloured by basal age of site
mapview(SahulCHAR, xcol = "X_WGS84", ycol = "Y_WGS84",
        zcol = "MAXAGE", at = seq(0, 100000, 10000), alpha = .25,
        # set range (0 to 100000) and bins (10 ka)
        alpha.regions = 0.1, legend = TRUE)


        # Display on map using "mapview" package
```