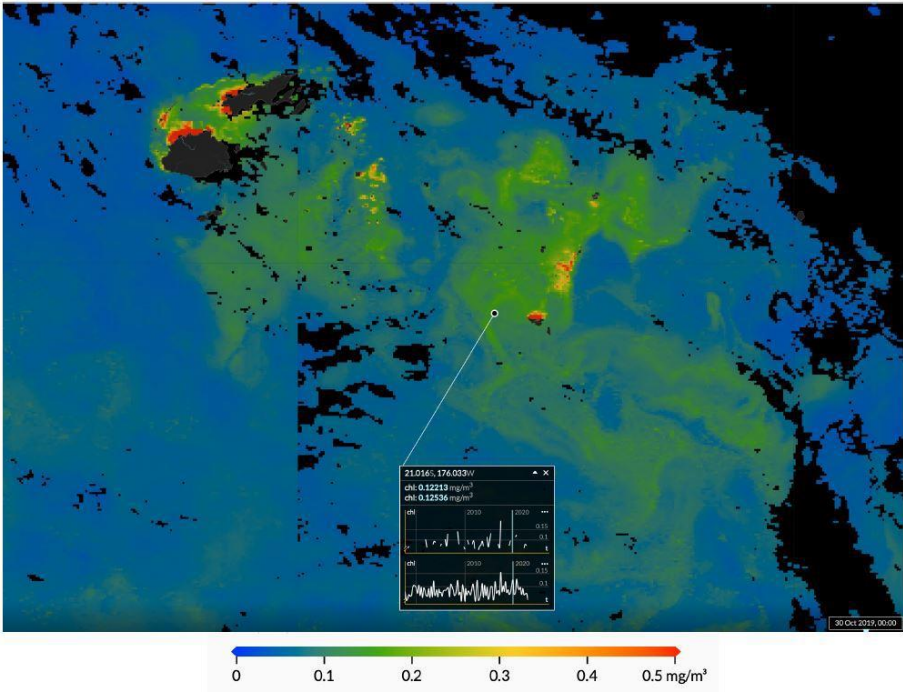
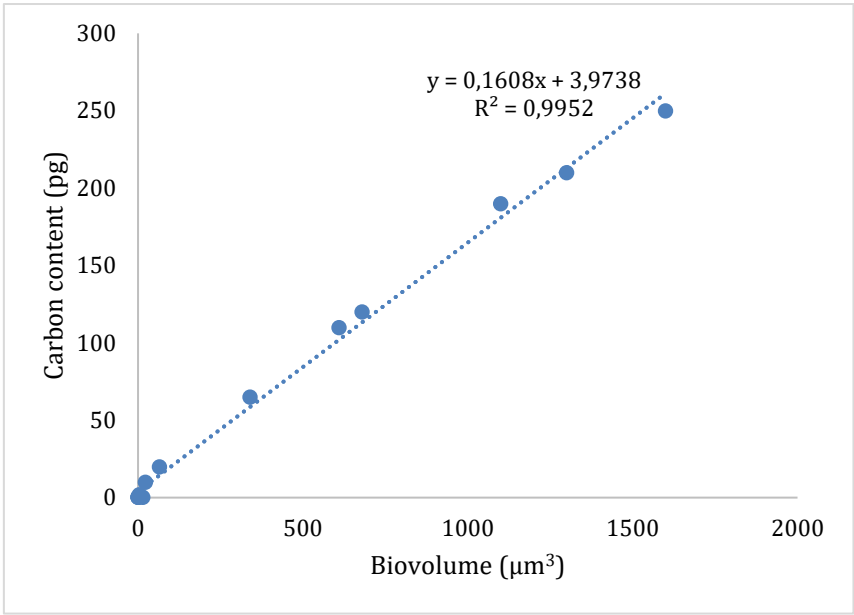


Supporting Information

Diazotrophs support significantly the particulate organic export in the Western subtropical South Pacific Ocean through direct and indirect pathways.

Table and Figure S1. Biovolumes and carbon contents of different diazotrophs used to obtain the conversion equation used in this study.

Diazotroph species	Biovolume (μm^3)	C content (pg C cell⁻¹)	Diameter (μm)	Reference
<i>T. THIEBAUTII</i>	680	120	-	(Luo et al. 2012)
<i>T. TENUE</i>	610	110	-	(Luo et al. 2012)
<i>T.PELAGICIUM</i>	1100	190	-	(Luo et al. 2012)
<i>T.HILDERBRANTI</i>	1600	250	-	(Luo et al. 2012)
<i>T. ERYTHRAEUM</i>	340	65	-	(Luo et al. 2012)
<i>T. CONTORTUM</i>	1300	210	-	(Luo et al. 2012)
UCYN-A	0,53	0,2	1	(Luo et al. 2012)
UCYN-B	65,42	20	5	(Luo et al. 2012)
UCYN-C	22,44	10	3,5	(Luo et al. 2012)
UCYN-A	0,5	0,48		(Goebel et al. 2008)
<i>Crocospheara</i>	4,2	2	2	(Goebel et al. 2008)
<i>Trichodesmium</i>	1	0,181	550	(Goebel et al. 2008)
<i>Crocospheara</i>	1	0,456	5	(Goebel et al. 2008)
<i>Crocospheara</i>	14,3	0,2	3	(Dron et al. 2012)



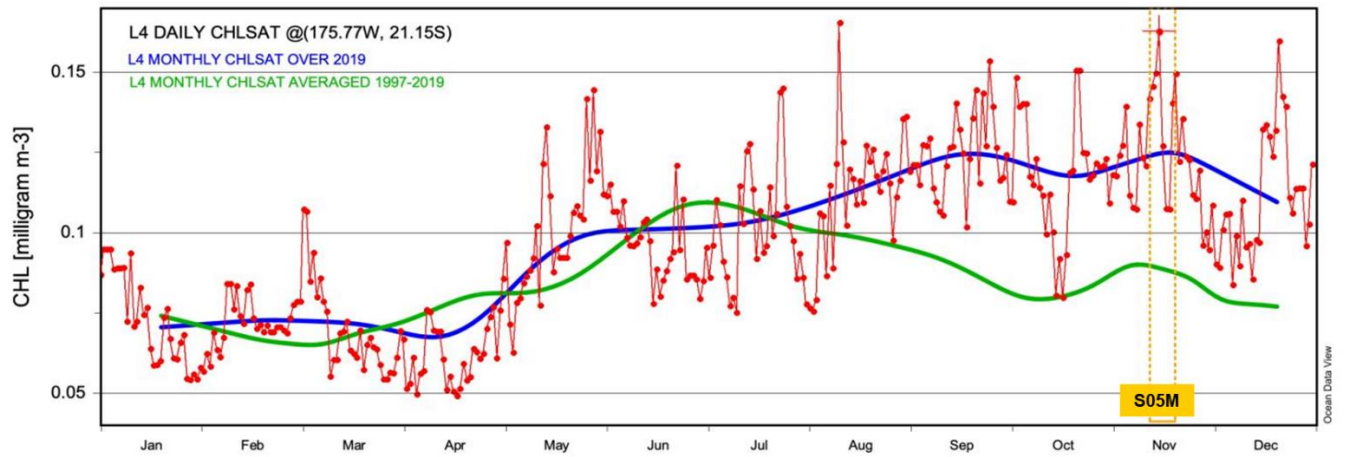


Figure S2. Global ocean colour (Copernicus-GlobColour), Bio-Geo-Chemical, L4 (monthly and interpolated) from Satellite Observations (upper panel). Daily L4 time series extracted at station 5 (21.15°S, 175.7°W). The blue and green curves are taken from the monthly L4 and shifted by 15 days (centered on the 15th of the month)(lower panel).