**Morphometric and molecular characterization of an expanding Ionian population of the fireworm *Hermodice carunculata* (Annelida)**

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**Supplementary Material**

**Caption of Supplementary Figure S1.** Draftsman’s Plotshowing correlations between allometric variables of *H. carunculata*. Pearson correlation (r) calculated between morphometric traits (r critic = 0.525) and *p* values are shown for each analysis. All *p* values are highly significant (*p*<0.001).

**Supplementary Table S2.** Voucher specimens (COI and 16S) for *H. carunculata* sequences downloaded from Genbank (Ahrens *et al.,* 2013).

|  |  |
| --- | --- |
| **GenBank COI** | **GenBank 16S** |
| BankIt1575085 AW12 KC017475 | BankIt1575187 AW12 KC017601 |
| BankIt1575085 AW14 KC017476 | BankIt1575187 AW14 KC017602 |
| BankIt1575085 AW15 KC017477 | BankIt1575187 AW15 KC017603 |
| BankIt1575085 AW16 KC017478 | BankIt1575187 AW16 KC017604 |
| BankIt1575085 AW17 KC017479 | BankIt1575187 AW17 KC017605 |
| BankIt1575085 AW19 KC017480 | BankIt1575187 AW19 KC017606 |
| BankIt1575085 AW24 KC017481 | BankIt1575187 AW24 KC017608 |
| BankIt1575085 AW25 KC017482 | BankIt1575187 AW25 KC017609 |
| BankIt1575085 ASPSP1 KC017483 | BankIt1575187 ASPSP1 KC017691 |
| BankIt1575085 ASPSP10 KC017484 | BankIt1575187 ASPSP10 KC017700 |
| BankIt1575085 ASPSP11 KC017485 | BankIt1575187 ASPSP11 KC017701 |
| BankIt1575085 ASPSP12 KC017486 | BankIt1575187 ASPSP12 KC017702 |
| BankIt1575085 ASPSP13 KC017487 | BankIt1575187 ASPSP13 KC017703 |
| BankIt1575085 ASPSP14 KC017488 | BankIt1575187 ASPSP14 KC017704 |
| BankIt1575085 ASPSP15 KC017489 | BankIt1575187 ASPSP15 KC017705 |
| BankIt1575085 ASPSP16 KC017490 | BankIt1575187 ASPSP16 KC017706 |
| BankIt1575085 ASPSP17 KC017491 | BankIt1575187 ASPSP17 KC017707 |
| BankIt1575085 ASPSP18 KC017492 | BankIt1575187 ASPSP18 KC017708 |
| BankIt1575085 ASPSP2 KC017493 | BankIt1575187 ASPSP2 KC017692 |
| BankIt1575085 ASPSP3 KC017494 | BankIt1575187 ASPSP3 KC017693 |
| BankIt1575085 ASPSP4 KC017495 | BankIt1575187 ASPSP4 KC017694 |
| BankIt1575085 ASPSP5 KC017496 | BankIt1575187 ASPSP5 KC017695 |
| BankIt1575085 ASPSP6 KC017497 | BankIt1575187 ASPSP6 KC017696 |
| BankIt1575085 ASPSP7 KC017498 | BankIt1575187 ASPSP7 KC017697 |
| BankIt1575085 ASPSP9 KC017499 | BankIt1575187 ASPSP9 KC017699 |
| JN086549 | JN086558 |
| BankIt1575085 BB1 KC017500 | BankIt1575187 BB1 KC017720 |
| BankIt1575085 BB2 KC017501 | BankIt1575187 BB2 KC017721 |
| BankIt1575085 BB3 KC017502 | BankIt1575187 BB3 KC017722 |
| BankIt1575085 BB4 KC017503 | BankIt1575187 BB4 KC017723 |
| BankIt1575085 BB5 KC017504 | BankIt1575187 BB5 KC017724 |
| BankIt1575085 BB8 KC017505 | BankIt1575187 BB8 KC017725 |
| BankIt1575085 BB10 KC017506 | BankIt1575187 BB10 KC017727 |
| BankIt1575085 BB11 KC017507 | BankIt1575187 BB11 KC017728 |
| BankIt1575085 BB12 KC017508 | BankIt1575187 BB12 KC017729 |
| BankIt1575085 BdT1 KC017509 | BankIt1575187 BdT1 KC017610 |
| BankIt1575085 BdT2 KC017510 | BankIt1575187 BdT2 KC017611 |
| BankIt1575085 BdT4 KC017512 | BankIt1575187 BdT4 KC017612 |
| BankIt1575085 BdT5 KC017513 | BankIt1575187 BdT5 KC017613 |
| BankIt1575085 BdT6 KC017514 | BankIt1575187 BdT6 KC017614 |
| BankIt1575085 BdT7 KC017515 | BankIt1575187 BdT7 KC017615 |
| BankIt1575085 BdT9 KC017516 | BankIt1575187 BdT9 KC017617 |
| BankIt1575085 BdT10 KC017517 | BankIt1575187 BdT10 KC017618 |
| BankIt1575085 BdT11 KC017518 | BankIt1575187 BdT11 KC017619 |
| BankIt1575085 BdT13 KC017519 | BankIt1575187 BdT13 KC017621 |
| BankIt1575085 BdT14 KC017520 | BankIt1575187 BdT14 KC017622 |
| BankIt1575085 BdT15 KC017521 | BankIt1575187 BdT15 KC017623 |
| BankIt1575085 BdT16 KC017522 | BankIt1575187 BdT16 KC017624 |
| BankIt1575085 BdT17 KC017523 | BankIt1575187 BdT17 KC017625 |
| BankIt1575085 BdT18 KC017524 | BankIt1575187 BdT18 KC017626 |
| BankIt1575085 HECA74 KC017525 | BankIt1575187 HECA74 KC017628 |
| BankIt1575085 Cr10 KC017526 | BankIt1575187 Cr10 KC017633 |
| BankIt1575085 Cr16 KC017527 | BankIt1575187 Cr16 KC017635 |
| BankIt1575085 Cr17 KC017528 | BankIt1575187 Cr17 KC017636 |
| BankIt1575085 Cr18 KC017529 | BankIt1575187 Cr18 KC017637 |
| BankIt1575085 Cr19 KC017530 | BankIt1575187 Cr19 KC017638 |
| BankIt1575085 Cr20 KC017531 | BankIt1575187 Cr20 KC017639 |
| BankIt1575085 Cr21 KC017532 | BankIt1575187 Cr21 KC017640 |
| BankIt1575085 Cr24 KC017533 | BankIt1575187 Cr24 KC017642 |
| BankIt1575085 Cr8 KC017540 | BankIt1575187 Cr8 KC017632 |
| BankIt1575085 E1-3 KC017541 | BankIt1575187 E1-3 KC017714 |
| BankIt1575085 E1-5 KC017542 | BankIt1575187 E1-5 KC017711 |
| BankIt1575085 E1-6 KC017543 | BankIt1575187 E1-6 KC017712 |
| BankIt1575085 W3 KC017544 | BankIt1575187 W3 KC017709 |
| BankIt1575085 W4 KC017545 | BankIt1575187 W4 KC017710 |
| BankIt1575085 W4-2 KC017546 | BankIt1575187 W4-2 KC017716 |
| BankIt1575085 W4-3 KC017547 | BankIt1575187 W4-3 KC017717 |
| BankIt1575085 W4-4 KC017548 | BankIt1575187 W4-4 KC017718 |
| BankIt1575085 W4-5 KC017549 | BankIt1575187 W4-5 KC017719 |
| BankIt1575085 K1 KC017550 | BankIt1575187 K1 KC017629 |
| BankIt1575085 K6 KC017551 | BankIt1575187 K6 KC017630 |
| BankIt1575085 K7 KC017552 | BankIt1575187 K7 KC017631 |
| BankIt1575085 Ma1 KC017553 | BankIt1575187 Ma1 KC017643 |
| BankIt1575085 Ma2 KC017555 | BankIt1575187 Ma2 KC017644 |
| BankIt1575085 Ma7 KC017558 | BankIt1575187 Ma7 KC017646 |
| BankIt1575085 Ma9 KC017559 | BankIt1575187 Ma9 KC017648 |
| BankIt1575085 PS1 KC017560 | BankIt1575187 PS1 KC017730 |
| BankIt1575085 PS20 KC017561 | BankIt1575187 PS20 KC017732 |
| BankIt1575085 PS24 KC017562 | BankIt1575187 PS24 KC017736 |
| BankIt1575085 PS25 KC017563 | BankIt1575187 PS25 KC017737 |
| BankIt1575085 PS26 KC017564 | BankIt1575187 PS26 KC017738 |
| BankIt1575085 HECA46 KC017565 | BankIt1575187 HECA46 KC017650 |
| BankIt1575085 HECA209 KC017566 | BankIt1575187 HECA209 KC017651 |
| BankIt1575085 HECA96 KC017567 | BankIt1575187 HECA96 KC017652 |
| BankIt1575085 HECA73 KC017568 | BankIt1575187 HECA73 KC017653 |
| BankIt1575085 RdJ1 KC017569 | BankIt1575187 RdJ1 KC017654 |
| BankIt1575085 RdJ2 KC017570 | BankIt1575187 RdJ2 KC017655 |
| BankIt1575085 RdJ3 KC017571 | BankIt1575187 RdJ3 KC017656 |
| BankIt1575085 RA10 KC017572 | BankIt1575187 RA10 KC017658 |
| BankIt1575085 RA11 KC017573 | BankIt1575187 RA11 KC017659 |
| BankIt1575085 RA12 KC017574 | BankIt1575187 RA12 KC017660 |
| BankIt1575085 RA13 KC017575 | BankIt1575187 RA13 KC017661 |
| BankIt1575085 RA14 KC017576 | BankIt1575187 RA14 KC017662 |
| BankIt1575085 RA15 KC017577 | BankIt1575187 RA15 KC017663 |
| BankIt1575085 RA16 KC017578 | BankIt1575187 RA16 KC017664 |
| BankIt1575085 RA17 KC017579 | BankIt1575187 RA17 KC017665 |
| BankIt1575085 RA18 KC017580 | BankIt1575187 RA18 KC017666 |
| BankIt1575085 RA20 KC017581 | BankIt1575187 RA20 KC017668 |
| BankIt1575085 RA2 KC017582 | BankIt1575187 RA2 KC017667 |
| BankIt1575085 RA3 KC017583 | BankIt1575187 RA3 KC017669 |
| BankIt1575085 RA5 KC017584 | BankIt1575187 RA5 KC017671 |
| BankIt1575085 RA6 KC017585 | BankIt1575187 RA6 KC017672 |
| BankIt1575085 RA8 KC017586 | BankIt1575187 RA8 KC017674 |
| BankIt1575085 S3 KC017588 | BankIt1575187 S3 KC017681 |
| BankIt1575085 S4 KC017589 | BankIt1575187 S4 KC017682 |
| BankIt1575085 S5 KC017590 | BankIt1575187 S5 KC017683 |
| BankIt1575085 S22 KC017591 | BankIt1575187 S22 KC017677 |
| BankIt1575085 S23 KC017592 | BankIt1575187 S23 KC017678 |
| BankIt1575085 S25 KC017593 | BankIt1575187 S25 KC017679 |
| BankIt1575085 S27 KC017594 | BankIt1575187 S27 KC017680 |
| BankIt1575085 ST1 KC017595 | BankIt1575187 ST1 KC017685 |
| BankIt1575085 ST2 KC017596 | BankIt1575187 ST2 KC017686 |
| BankIt1575085 ST3 KC017597 | BankIt1575187 ST3 KC017687 |
| BankIt1575085 ST4 KC017598 | BankIt1575187 ST4 KC017688 |
| BankIt1575085 ST5 KC017599 | BankIt1575187 ST5 KC017689 |

**Supplementary Table S3.** Biometric measurements of *H. carunculata* available only for specimens from Porto Cesareo (106 individuals).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Allometric traits** | **Mean** | **±SD** | **Min** | **Max** |
| Weight (g) | 11.83 | 8.96 | 0.46 | 45.58 |
| Length (cm) | 15.81 | 5.26 | 3.28 | 28.41 |
| Width (cm) | 0.58 | 0.16 | 0.24 | 0.95 |

SD, Standard Deviation; Min, minimum; Max, maximum