

343 Dear Editor and Reviewer,

344

345 Attached is a second major revision. Like before, all corrections are in blue. Detailed comments
346 are below.

347

348 I find that the manuscript has improved a lot. Thank you for following my comments and
349 suggestions. Unfortunately, I still think that the manuscript needs some work, particularly
350 regarding the statistics and figures. Please find my comments below.

351 AUTHORS: Dear referee, it's a pleasure to read these lines.

352

353 Major comments:

354

355 Thank you for showing the scatter plots with the raw data. This is very useful in determining
356 whether fitting a linear regression to your data is sensible. It looks like your data is significantly
357 right-skewed: the majority of your data points are clustered near the origin and the trend you
358 observe is driven by a few individual points. Please check whether your data is normally
359 distributed before fitting a linear regression. A log-log transformation might help to fulfil the
360 assumptions (i.e. normal distribution). You will likely still obtain a significant relationship
361 between Chl and zooplankton abundance after transforming the data, but the results will be
362 robust.

363 AUTHORS: Yes, most of tests for normal distribution failed. The data were log-transformed as
364 recommended and all distributions except a single one became normal. Figure 5, Table 3, and a
365 respective part in Results were redone.

366

367 The notion of an inverted food pyramid is very interesting and it would be nice to have a
368 graphical representation of this. Have you considered, maybe for a future study, to look at
369 biomass spectra?

370 AUTHORS: Yes, we plan to do this in the nearest future after collecting additional material this
371 year. We feel this idea needs a separate detailed paper with results and discussion. We would be
372 pleased to send this paper to you for a review next year.

373

374 All figures need work. Many are lacking axis labels and legends.

375 AUTHORS: You could overlook legends, they were submitted and stand separately of the
376 figures themselves. All captions include necessary (and not redundant) information including
377 information about axes (it would not be wise, for example, to label all identical axes in Fig. 5,
378 this information is included in the caption to this figure). If we have overlooked something,
379 please, please indicate more specifically.

380

381 The font sizes are often too small. Many captions are incomplete.

382 AUTHORS: You probably mean Fig. 4. We have enlarged the text. In Fig 5, dots look as if they
383 have different size; that is not true: this is the effect of our Word version, we will discuss with
384 the production department the picture format and proceed accordingly.

385

386 A point should be used to indicate decimal places (please also check the tables for this).

387 AUTHORS: Yes, the commas to indicate decimal places are now replaced with the points in Fig.
388 5 and Table 3. It is our fault, because traditional Russian format uses commas.

389

390 Minor comments:

391

392 Table 1: A table detailing the site of the locations and depth range has now been added. Why did
393 you not include Chl concentrations, temperature? This would allow other scientists to build on
394 your data.

395 AUTHORS: Now the required information added.
396
397 L22: "I doing so". Please change.
398 AUTHORS: removed
399
400 L25: Fish are not plankton, so I do not think you need to specifically mention them. Also, you
401 exclude them from most of your data analyses.
402 AUTHORS: We have removed most of references except few ones, which are necessary for a
403 general discussion.
404
405
406 L27: This sentence is a bit awkward as it mixes two ideas: vertical structure and trophic
407 structure. I suggest rephrasing it to avoid confusion.
408 AUTHORS: corrected
409
410 L28: You are not discussion biogeochemical cycles. Maybe better: "These findings, [...], suggest
411 that the importance of deep-ocean pelagic fauna for biogeochemical cycles maybe more
412 important than previously thought", or similar. Also, biogeochemical cycles are not mentioned
413 anywhere else in the manuscript (except for in the abstract)!
414 AUTHORS: done as recommended
415
416 L80: I would move this paragraph into the method section.
417 AUTHORS: done as recommended
418
419 L98: "Samples have been taken following the same protocol"
420 AUTHORS: corrected
421
422 L120: What is the upper size that is reliably caught with these nets? This should be mentioned as
423 it especially important for the interpretation of the fish biomass.
424 AUTHORS: size interval now provided
425
426 L127ff: maybe nicer to say "dominated by..." rather than "mainly..."
427 AUTHORS: done as recommended
428
429 L137: How did you obtain the length of an individual specimen?
430 AUTHORS: measured with an ocular ruler, now explained
431
432 L163: "decapod decapods", please correct
433 AUTHORS: sorry, corrected
434
435 L240: "quasiexponential decrease". Is this just based on eye-balling? Please clarify. A simple
436 regression fit (i.e. biomass vs average depth) would make this statement more robust.
437 AUTHORS: We have removed "quasiexponential" for clarity. Indeed, more date are necessary
438 to obtain robust exponential regressions. This is a task for the next two years. The cited authors
439 (Vinogradov, 1970) actually had had exponential regressions on a more extensive material.
440
441 L243-245: This sentence is awkward and does not add much. Please rephrase or delete.
442 AUTHORS: deleted
443
444 L256: It is interesting that you decided to average Chl over one year. Out of interest, have you
445 tried correlations between biomass and Chl averaged over, for example, 6 months or 1 month
446 prior to sampling? I suspect that the correlation would be a lot weaker (if any).

447 AUTHORS: A very intriguing question. As mentioned above, this year we plan to get an
448 additional material (actually, to double material) and create a separate paper testing different
449 time and space averaging. The cruises start very soon and last long.