

Data Paper

Kunio T. Takahashi, Ryosuke Makabe, Shintaro Takao and Tsuneo Odate (Deceased). Marine ecosystem monitoring in the sea-ice region of Lützow-Holm Bay, off Syowa Station, during the icebreaker *Shirase* cruise of the 59th Japanese Antarctic Research Expedition. *Polar Data Journal*. 2024, 8, p. 67–79. <https://doi.org/10.20575/00000057>.

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1st submission

Editor Start Date: 7/3/2024

Editor Stop Date: 8/25/2024

Reviewer #1 (7/23/2024–7/23/2024)

Reviewer #2 (8/10/2024–8/24/2024)

Reviewer #1: Anonymous

The authors compiled the data of several essential parameters in relation to lower trophic levels in the water off Syowa Station, Antarctica.

I have two comments below. If the authors think that correction are required, this paper should be published after they revise them.

1. Is the character '-' of Lützow-Holm 'hyphen'? It seems to be any other character, e.g. em-dash, en-dash.
2. What is the difference between 'marine ecosystem monitoring' and 'marine ecological monitoring'? I guess that they are similar but a little different meaning.

Reviewer #2: Anonymous

This paper reports on marine ecological observations off Showa Station in JARE 59. It provides valuable data in areas where oceanographic observations are relatively challenging to conduct due to the thick sea ice distribution.

However, the contents of this paper is almost identical to Ref. 12, with almost the same measurement items, sampling locations, and analytical methods reported by the same authors. The figures used in Ref. 12 and this study are also the same. It makes sense to publish these data as preliminary reports for each expedition every year. However, Jare 58 (Ref.12) and 59 (this study) were conducted 5 ~ 6 years ago.

What is the significance and viridity of publishing two expeditions (Jare58 and Jare59) as separate papers in 2024?

L9-14

Is a comma after the number of street address necessary or unnecessary? Please unify the expressions among 1~4 address and \*\*Present address.

L11

There is no country name.

L15

Incorrect period position.

L22 and thereafter

sea-ice→sea ice

L24

The use of→Using

L27-28

Why is Jare58 the First Report and Jare59 the Second Report when it says such observations started with Jare52 (L21)?

Please revise the wording so that the positioning of this data is not unclear.

L48

report for→report on

L50

Isn't the title the central assortment? Please unify the expression.

L58, L89, L135, L161, L173

Sub-titles are written in different ways.

L63

several time→several times

L78

using glass-fiber filter→using a glass-fiber filter

L79

using Whatman nuclepore membrane filter→using a Whatman nuclepore membrane filter

L92

At least, it should state what machine was used and what method was used for the measurements; citing Shimada et al.,

2021 is not sufficient.

L99-100

Tenses are not unified for this sentence.

L162

lowest→the lowest

L177

counting number of individuals→counting the number of individuals

L178

measured the wet weight each category→the wet weight of each category was measured

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Authors Response:

Thank you very much for your e-mail concerning our manuscript together with the comments from the two reviewers.

We found several important points to be improved before acceptance on this Journal.

We have made some minor changes, according to referee's comments.

Response to reviewer #1:

The authors compiled the data of several essential parameters in relation to lower trophic levels in the water off Syowa Station, Antarctica.

I have two comments below. If the authors think that correction are required, this paper should be published after they revise them.

1. Is the character '-' of Lützow-Holm 'hyphen'? It seems to be any other character, e.g. em-dash, en-dash.

A: This is used as a hyphen. This name comes from the Norwegian pilot Finn Lützow-Holm. All relevant parts changed to hyphens (Lines 1, 21, 42, 53, 247, and 305).

2. What is the difference between 'marine ecosystem monitoring' and 'marine ecological monitoring'?

I guess that they are similar but a little different meaning.

A: The name of this project is "Marine ecosystem monitoring". We changed "ecological" to "ecosystem" to clarify this pointed out (Lines 21 and 41).

Response to reviewer #2:

This paper reports on marine ecological observations off Showa Station in JARE 59. It provides valuable data in areas where oceanographic observations are relatively challenging to conduct due to the thick sea ice distribution.

However, the contents of this paper is almost identical to Ref. 12, with almost the same measurement items, sampling locations, and analytical methods reported by the same authors. The figures used in Ref. 12 and this study are also the same. It makes sense to publish these data as preliminary reports for each expedition every year. However, Jare 58 (Ref.12) and 59 (this study) were conducted 5 ~ 6 years ago. What is the significance and viridity of publishing two expeditions (Jare58 and Jare59) as separate papers in 2024?

A: This data report is the marine ecosystem monitoring data of the sea-ice region that is carried out every year. Since calibration for the analysis of each measurement item is carried out every year, it is our policy and we believe that the best method is to examine and publish the data every year. This report includes all observation items, including nutrients, phytoplankton, and zooplankton, and is published as a valuable data set of the sea-ice region. Publication was delayed because it took time to examine all data. We plan to publish the data obtained after JARE-60 as soon as possible.

L9-14

Is a comma after the number of street address necessary or unnecessary? Please unify the expressions among 1~4 address and \*\*Present address.

A: added commas to Lines 8 and 11.

L11

There is no country name.

A: Line 12: added "Japan".

L15

Incorrect period position.

A: Line 15: changed period to comma.

L22 and thereafter

sea-ice→sea ice

A: Several technical terms with a hyphen in this text are commonly used in scientific papers, and "sea-ice" have already been used in this Journal. We hope to keep this unchanged.

L24

The use of→Using

A: We think "The use of" is appropriate here, so we hope to keep this unchanged.

L27-28

Why is Jare58 the First Report and Jare59 the Second Report when it says such observations started with Jare52 (L21)? Please revise the wording so that the positioning of this data is not unclear.

A: Data prior to the JARE-58 are published in the JARE Data Reports, and this is written on Lines 47-49.

L48

report for→report on

A: Line 49: changed “for” to “on”

L50

Isn't the title the central assortment? Please unify the expression.

A: Line 51: moved to center position.

L58, L89, L135, L161, L173

Sub-titles are written in different ways.

A: added comma on Lines 59, 90, and 138. Changed hyphen to comma on Line 164 and 176.

L63

several time→several times

A: Line 64: changed “time” to “times”.

L78

using glass-fiber filter→using a glass-fiber filter

A: Line 79: added the “a” before “glass-fiber”.

L79

using Whatman nuclepore membrane filter→using a Whatman nuclepore membrane filter

A: Line 80: added the “a” before “Whatman”.

L92

At least, it should state what machine was used and what method was used for the measurements; citing Shimada et al., 2021 is not sufficient.

A: Lines 93 to 96: added the following three sentences for clarify this pointed out, “Nutrient concentrations were measured with a QuAatro 2-HR system (provided by BL Tec K.K.). The nutrient (nitrate, nitrite, silicate and phosphate) concentration measurements followed the methods of Hydes et al. (2010)<sup>19</sup>. A detailed description of the processing technique is presented in Shimada et al. (2021)<sup>20</sup>.”

L99-100

Tenses are not unified for this sentence.

A: Line 100: changed “are” to “were”.

L162

lowest→the lowest

A: Line 165: added “the” before “lowest”.

L177

counting number of individuals→counting the number of individuals

A: Line 180: added “the” before “number”.

L178

measured the wet weight each category→the wet weight of each category was measured

A: Line 181: changed the sentence as you pointed out.

We hope that our revisions will improve the manuscript to your agreement.

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2nd submission

Editor Start Date: 9/5/2024

Editor Stop Date: 9/10/2024

Editor comments to the Author: Norio Kurosawa

The authors made appropriate revisions to the first manuscript following the reviewers' comments.

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Editorial Office's note

Calculate checksum date: 9/11/2024

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