The manuscript by Tylmann et al. provides a detailed description of datasets produced from a long-term environmental monitoring project at Lake Żabińskie in Poland. The lake contains annual laminations (varves) that have been analyzed in previous studies; the detailed monitoring presented here is useful for understanding the climatic signal recorded in these varves. This long-term (decade long) monitoring is particularly useful in the context of this varved record, and this dataset is highly worthy of publication in ESSD. The supplementary data are generally well organized and easy to navigate. My comments are minor and mainly focus on the organization of some sections of the manuscript and the framing of the datasets' significance:

1. Overall, I think the organization of sections 3 and 4 could be streamlined / redone a bit so they make more sense. The previous reviewer commented about combining 3.3 and 3.4, which could be a good start. But more broadly, I would make it very clear (and potentially group sections) based on how the data were collected (continuous instrumentation vs. discrete sampling) and/or the purpose of the data. Section 4 is organized into 1) water column data, 2) hydrochemistry data, and 3) modern sedimentation. Am I confused, or is the hydrochemistry data actually also water column data (that were collected from 40 m and 1 m, rather than every 10 m)? Perhaps Section 4 should be divided into a broader section of water related data, and another about sediment, with subsections as appropriate (i.e., for continuous vs discrete measurements, and/or for water properties vs hydrochemistry). Section 3 could follow the same general outline, so that it's easier for the reader to track the datasets presented as continuously measured vs sampled in the field (I found myself getting a little confused about this with the switching back and forth and different organization patterns in the different sections). The word "limnology" is used in the metadata to describe a subset of the water column data that are not hydrochemical; maybe this is a good framing to use in the paper organization, too.
2. In the introduction, the authors state that their results are relevant for modeling studies, and I think they're right. Though I realize this is not the main focus of the paper, I think the conclusion section would be strengthened with a brief discussion of the presented datasets and some more pointed recommendations for how they could be used in future limnological and modeling studies.

Specific/line-by-line comments:
L27-32: these statements follow a phrase about varves, specifically, and I think one of the main applications of these data is to understand what controls annual laminations, so it's a bit confusing that you then broaden out here to speak about lake sediments in general. Maybe rephrase or refine
L49-50: "lakes of temperate climate zones"
L51: "allow us to assess"
L95: how did these initial observations differ from "regular" ones?
L104-105: link to dataset
L122-123: I don't know what this means "daily mean values computed during the incremental database maintenance were recovered and used to fill the daily time series." What is the

"incremental database maintenance"? Do you mean during the regularly scheduled field sampling? Or something else? Either way, specify when / how often this occurred

Section 3.4: how often were water samples collected?

Section 3.6: more detail needed in the metadata; can you document how you acquired these data in each year presented, given the different methods outlined in this section? Can you give an estimate for the certainty/confidence somehow?

L175: "physiochemical"

Like the other reviewer, I did not find it immediately intuitive to use the links provided to access the meteorological data. Could this be made more seamless, and/or provided directly in the metadata?

Figures 3, 4, and 6: are these annual averages, or for a particular season?

Figure 3: this is Hobo data, correct?

Figure 4: can you specify which data were collected by continuous instrumentation vs. discrete measurements, and what we're seeing here?

Figure 5: what time period (in years) is this representing?

In the metadata, I think you need to specify somewhere what the IDs of the tributaries (O1, I1, etc.) correspond to). I realize this is somewhat done in figure 1, but these should have easily retrievable and identifiable coordinates that correspond to a title like "outflow 1" and then the abbreviation.

Also, in the "homogenized" temperature data, it's not clear to me what "series" and "period" refer to, and I don't think it's defined in the metadata (sorry if I missed that).