General comments:

This review article summarizes the context of a recent workshop in Gothenberg, including the past decade or so of research in iron biogeochemistry, with particular emphasis on colloidal phase iron, the behavior of iron in coastal and estuarine environments, and the potential effects of ocean acidification on iron cycling. The article also attempts to introduce a series of contributions to a special issue of Biogeosciences Discussions stemming from the Gothenberg workshop. Sometimes the purpose of this manuscript seems a little unclear – is this meant to be a comprehensive review of research in iron biogeochemistry over the past decade, or is this a workshop summary and introduction to a special issue combined with a review of relevant research? I believe the latter is the intention, and I have made some suggestions for making the true context of this review article more clear to the reader.

Specific comments:

- Preface, pgs 6637-6638: I think that the extensive reference here to the SCOR/IUPAC meeting is confusing and unnecessary. The text of the preface seems to suggest that the Gothenberg workshop and this set of articles in Biogeosciences Discussions constitute a review similar in magnitude and as comprehensive as the SCOR/IUPAC meeting and the book by Turner and Hunter. I disagree and think that the current preface text is misleading. Certainly the Amsterdam meeting and the Turner and Hunter book, published in 2001, should be referenced briefly here as a comprehensive review of iron biogeochemistry and a basis for focusing on subsequent findings in this review article. I would, however, eliminate the listing of "the priority areas identified in Amsterdam" and keep the focus instead on the actual structure of the Gothenberg workshop topics, since this is mirrored in the structure of this review article.

- Preface pg 6638: It is stated that "This article aims to synthesize…..the Gothenberg workshop and ties the manuscripts in this special issue into this overall context". This is fine, but it is absolutely essential that the articles in the special issue be identified as such in this review article text. The current manuscript does not make this distinction anywhere, and thus it is very difficult for the average reader to discern, without going carefully through the reference list, what recent references are seminal contributions to the literature on iron biogeochemistry and which are the articles contributed to this special issue. This is an important distinction and it would best serve the purposes of this review article to make this absolutely clear. See example below for how to go about this with the Ye et al article.

- Section 1.1, pg 6639 – "Recent campaigns in some of these regions…..do provide some confidence in the models, but the uncertainties are substantial" – This is a vague statement. What are "the models" referred to here? What are the uncertainties?

- Section 1.1, pg 6641 – in introducing the Ye et al. study, I would say something like this: "In their contribution to this special issue, Ye et al. (2009) aim to improve……" See my comment above about making it clear which references are part of the special issue. Similar introductory text should be adopted whenever an article in this special issue is being discussed.

- Section 2, pg. 6647, lines 11-14 – "Over all, our knowledge about……has greatly advanced (eg. Rue and Bruland 1995; Croot et al. 2001)." First, it should be overall, not over all (see below for my comment on the need for some English corrections). More importantly, what is the context for this very broad

statement? Knowledge of iron solubility, organic iron complexation, and iron redox states in the ocean in general? in HNLC areas? during or as a result of mesoscale iron fertilization experiments? I assume the latter, but in that case shouldn't you reference Rue and Bruland 1997, not 1995?

- Section 2, pg 6648 – I think an appropriate reference here would be the recent Science Policy Forum article by Buesseler et al. on the potential use of ocean iron fertilization for carbon credits (Buesseler et al 2008, "Ocean Iron Fertilization – Moving Forward in a Sea of Uncertainty", Science 319:162)

- Section 3 – This section really needs to be re-organized. Rather than starting out with the extensive discussion of the Baltic Sea work, the section should instead begin with an overview of recent findings on iron in coastal/estuarine systems and conclude with a discussion of the Baltic Sea papers as contributions to this special issue.

- Sections 4, 5 and 6 – In general, I think these sections are well written. One could quibble about what is included, but keeping in mind that this is not meant to be an exhaustive review, I think these sections are OK pretty much as is. Again, please take care to introduce the special issue contributions as such.

Technical corrections:

The English overall is pretty good, but editorial staff will need to make some corrections here and there for awkward phrasing and inappropriate word usage, etc.

Pg 6640, first paragraph – is "deposition velocity" really the term to use here? It seems like "deposition flux" might be more appropriate, or some measurement of deposition amount, rather than the speed of deposition.

References – the reference for Rose et al. 2009 is incomplete.