From: Christopher Kelley ckelley@hawaii.edu

Sent: Monday, July 11, 2016 5:50 AM

To: Donald Schug Subject: Re: Middle Bank

Hi Don:

I have maps showing the boundary and Middle Bank which I can send you. Since I haven't been involved with the bottomfish fishery for years, my catch data for the bank is quite old and dates back to when bottom fishing was allowed in the monument. At that time, the fishermen who fished the bank were Mau or Hoomalu zone fishermen whom we believed were not reporting their catch at Middle Bank but rather reported the fish they caught there as coming from their NWHI Zone. This is because they didn't want to have to fill out 2 catch reports, one for the NWHI and one for DLNR. You still should be able to request catch data for Middle Bank by contacting Reggie (I think) at DLNR. But it wouldn't surprise me if fishermen were not reporting their catch there now either.

I can also send you Ana Vaz's larval export analysis showing how important Middle Bank is to maintaining the connectivity between the Main Islands and the monument.

In my opinion, Middle Bank is without a doubt the most important area for monument expansion, even if you don't expand anywhere else. I will try to dredge up old emails that I sent Randy and Aulani with my argument and attachments.

Chris

From: Christopher Kelley < ckelley@hawaii.edu>

To: Randall Kosaki <Randall.Kosaki@noaa.gov, dlnr@hawaii.gov, Aulani.Wilhelm@noaa.gov,

Alton.K.Miyasaka@hawaii.gov, Jeffrey Drazen <jdrazen@hawaii.edu>,

Date: 09/04/2013 08:24 AM Subject: Middle Bank Proposal

Hello Randy, Aulani, William, Alton, and Jeff:

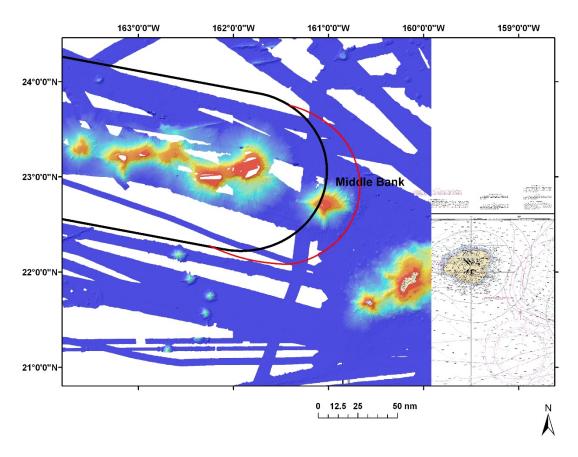
I've attached a map showing you exactly what I was proposing regarding the expansion of the monument boundaries to include Middle Bank. The current boundary is shown in black and the proposed expansion is shown in red. As you can see, this expansion would remove any possibility of bottomfishing in or near the monument boundary since the closest bottomfishing depths to the monument will now be Kaula Rock and Niihau. The expansion will therefore create a buffer of approximately 40 miles between the MHI and the boundary.

In exchange for taking away the bottomfishing grounds on Middle Bank, the Kaula Rock BRFA (shown in red near the bottom of the image) would be opened up for fishing. According to Ana Vaz's larval dispersal modelling research, Kaula Rock is far less important than Middle Bank to maintaining connectivity between the monument and the MHI. In fact, her research showed Middle Bank is crucial to that connectivity and that is why I am recommending that it be fully protected inside the monument boundaries. By the way, since only the top of Middle Bank is shallow enough for bottomfishing, this exchange of Middle Bank grounds for Kaula Rock grounds is much more equal than it may appear in this image.

I realize that what I am suggesting you do will probably take a considerable amount of time and effort since it probably is no easy task to change boundaries created by presidential proclamation. However, in this case, I think this change is worth the effort and I will stand ready to assist you in any way I can if you decide to proceed.

Thank you all very much for considering this idea.

Chris



From: Christopher Kelley ckelley@hawaii.edu

Date: Tue, Oct 15, 2013 at 9:27 AM Subject: Re: Middle Bank Proposal To: Alton.K.Miyasaka@hawaii.gov

Hi Alton:

Ana's manuscript is in review right now. I don't think she would mind if I sent you a copy so I've attached it. I've cut and pasted a portion of this manuscript that pertains specifically to Middle Bank and its importance.

"In addition, the role of this region as an ecological corridor calls attention to Middle Bank, an important site for multi-generational connectivity for *P. filamentosus*. This important fisheries habitat is located between the MHI and the PMNM, and only a small part of the bank is protected by the PMNM. Its location is inefficient for management and fishery regulations. Indeed, there is no control of fisheries activities at Middle Bank. To reassess the importance of

Middle Bank, larval dispersal was simulated for one year while excluding this and other submerged banks as release and destination sites. The model results for *E. carbunculus*) indicated no connection existed for 2009 between the PMNM and the MHI (results not shown). This is a further indication of the importance of this bank in maintaining the connectivity and therefore the integrity of the stocks located in the MHI and the PMNM".

I also paraphrased the importance of this bank in the original email. This bank is crucial to the connectivity between the NWHI and the MHI and the majority of it is open to fishing. It is accessible to fishermen based on Kauai but is an area almost impossible for either the state or the feds to regulate due to its location. There has already been misreporting of the catch on this bank. I was told that when the NWHI fishermen were coming back down, they would stop at Middle Bank, catch more fish but include them in their NWHI reports because they didn't want to fill out both a NWHI and MHI catch report. It would not surprise me at all if guys fishing there are not reporting that location as being where they caught the fish. I think that it is critical for there to be a clear border and buffer zone between the monument and the MHI and including Middle Bank in the monument would create that. Right now, fishermen can go right up to the boundary or even move inside and no one is going to find out about it. With the buffer, there shouldn't be any fishermen within 40 miles of the boundary. The boundary right now that bisects the bank makes no sense whatsoever. I realize why it happened (the 50 mile buffer around each emergent land mass) but that doesn't mean it can't be improved after the fact. Boundaries are everything when it comes to protecting resources and this is one boundary that could clearly be improved by just spending a bit of effort to do so.

Hope that helps.

Chris