

2022

Weather patterns associated with green turtle (*Chelonia mydas*) hypothermic stunning in Corpus Christi Bay, Texas

Morley, M.

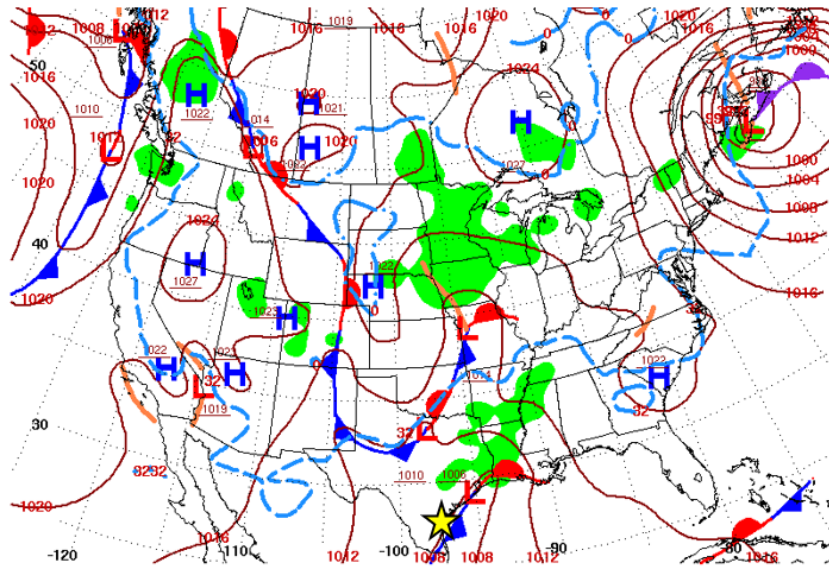
Morley, M. (2022) 'Weather patterns associated with green turtle (*Chelonia mydas*) hypothermic stunning in Corpus Christi Bay, Texas', *The Plymouth Student Scientist*, 15(2), pp. 275-297.

<http://hdl.handle.net/10026.1/20114>

University of Plymouth

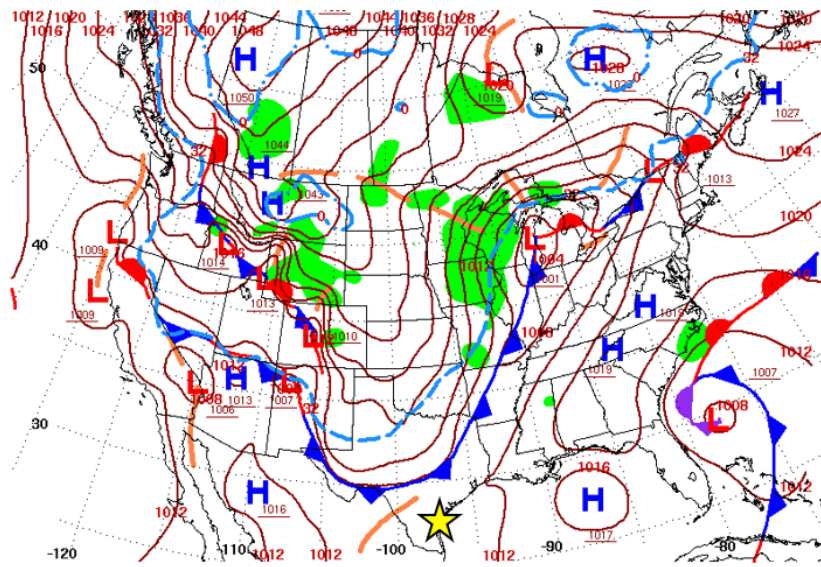
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Appendix A: Surface Pressure Charts



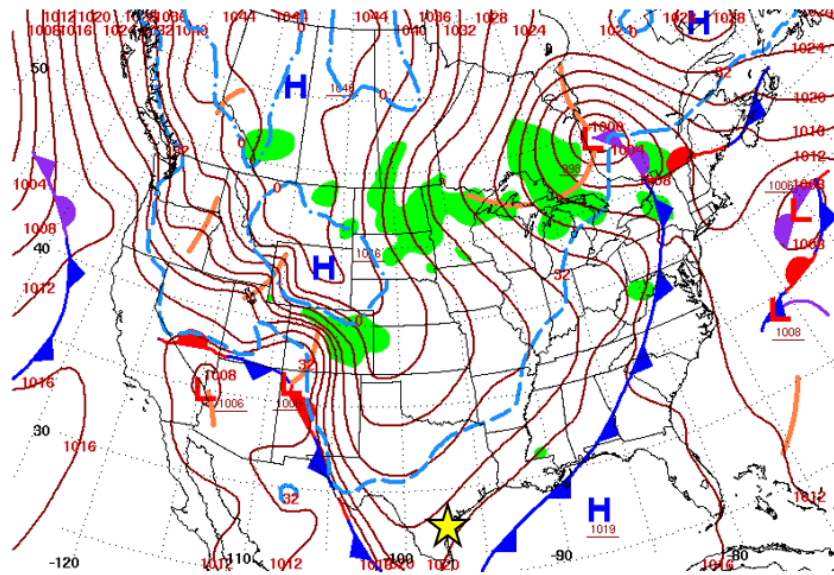
Surface Weather Map at 7:00 A.M. E.S.T.

Figure A1: Daily U.S surface weather map for 28/12/2012 at 7:00 a.m. E.S.T showing the formation and progression of cold fronts (solid blue line with triangles) and warm fronts (solid red line with semi-circles) around regions of high (H) and low (L) pressure across the United States with resulting precipitation (green shaded regions) (NOAA Weather Prediction Center, 2022). The location of Corpus Christi Bay Texas is indicated by the yellow star marker. This day correlates to the day before the first cold stun reports of the 2012-2013 low severity hypothermic stunning season, a small but noticeable cold front can be seen having just passed Corpus Christi Bay.



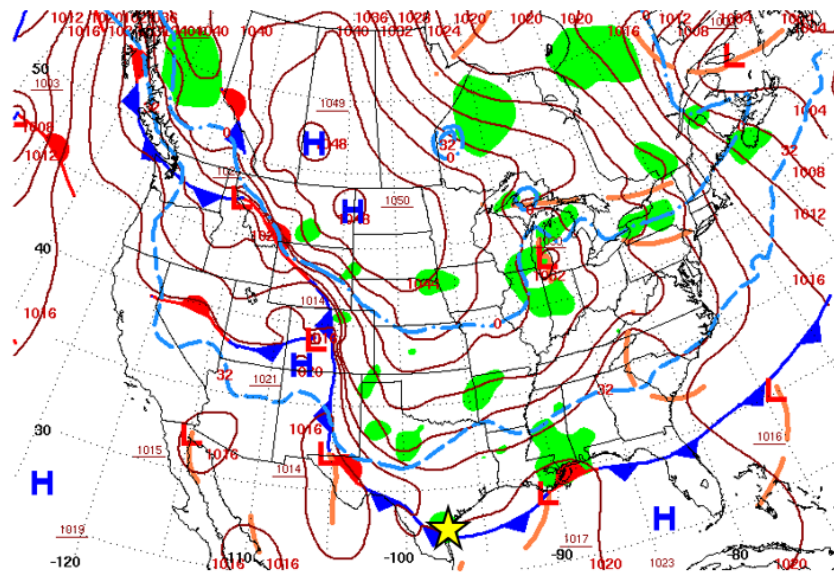
Surface Weather Map at 7:00 A.M. E.S.T.

Figure A2: Daily U.S surface weather map for 11/11/2014 at 7:00 a.m. E.S.T showing the formation and progression of cold fronts (solid blue line with triangles) and warm fronts (solid red line with semi-circles) around regions of high (H) and low (L) pressure across the United States with resulting precipitation (green shaded regions) (NOAA Weather Prediction Center, 2022). The location of Corpus Christi Bay Texas is indicated by the yellow star marker. This date is two days prior to the start of the first cold stun event of the 2014-2015 hypothermic stunning season, the cold front can be seen progressing from the northwest moving southeast across Texas.



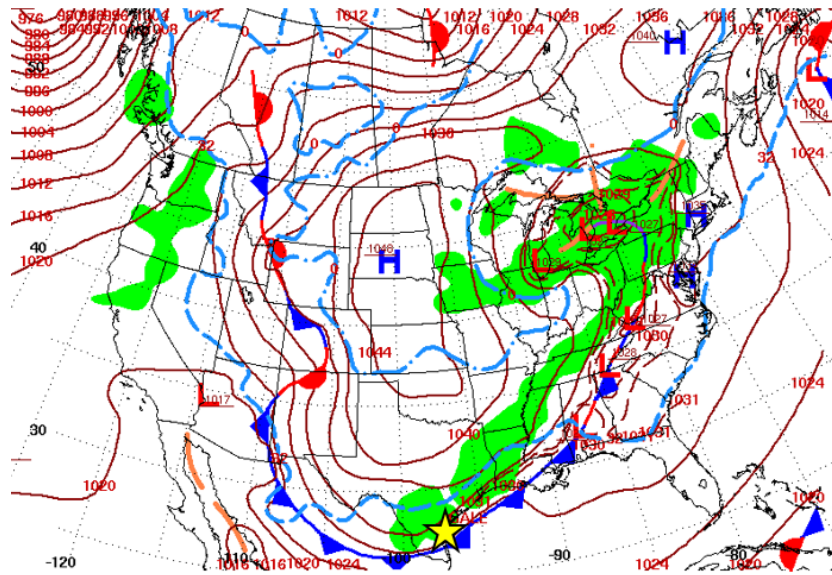
Surface Weather Map at 7:00 A.M. E.S.T.

Figure A3: Daily U.S surface weather map for 12/11/2014 at 7:00 a.m. E.S.T showing the formation and progression of cold fronts (solid blue line with triangles) and warm fronts (solid red line with semi-circles) around regions of high (H) and low (L) pressure across the United States with resulting precipitation (green shaded regions) (NOAA Weather Prediction Center, 2022). The location of Corpus Christi Bay Texas is indicated by the yellow star marker. This day marks the day before the start of the first cold stun event of the 2014-2015 hypothermic stunning season, the cold front has now moved over Corpus Christi Bay.



Surface Weather Map at 7:00 A.M. E.S.T.

Figure A4: Daily U.S surface weather map for 31/12/2017 at 7:00 a.m. E.S.T showing the formation and progression of cold fronts (solid blue line with triangles) and warm fronts (solid red line with semi-circles) around regions of high (H) and low (L) pressure across the United States with resulting precipitation (green shaded regions) (NOAA Weather Prediction Center, 2022). The location of Corpus Christi Bay Texas is indicated by the yellow star marker. This date represents the day before the start of the cold stun event of the 2017-2018 severe hypothermic stunning season, a cold front is observed passing over Corpus Christi Bay.



Surface Weather Map at 7:00 A.M. E.S.T.

Figure A5: Daily U.S surface weather map for 16/01/2018 at 7:00 a.m. E.S.T showing the formation and progression of cold fronts (solid blue line with triangles) and warm fronts (solid red line with semi-circles) around regions of high (H) and low (L) pressure across the United States with resulting precipitation (green shaded regions) (NOAA Weather Prediction Center, 2022). The location of Corpus Christi Bay Texas is indicated by the yellow star marker. This day marks a second cold front that hits the area during the severe cold stun event as sea surface temperatures begin to recover, prolonging the event and increasing its severity.

Appendix B: Permissions

Re: Permission Request to Use Data



Ben Higgins - NOAA Federal <ben.higgins@noaa.gov>

23/07/2022 16:23



To: Megan Morley

Megan,
I think your citation is sufficient
Regards
Ben

On Sat, Jul 23, 2022 at 6:08 AM Megan Morley <meganimorley@yahoo.com> wrote:
Dear Ben,

I hope you are well.

As I have now completed my dissertation research I am requesting permission to use the 'U.S Gulf of Mexico statistical zone map', accessible on the NOAA Fisheries Sea Turtle Stranding and Salvage Network website, in the publication of my undergraduate BSc Oceanography and Coastal Processes dissertation at the University of Plymouth in the Plymouth Student Scientist Journal. (Please see the image attached to this email).

I have used the following citation when utilising the map within my research but please let me know if any additional recognition is required in order for me to use this image in my thesis.

NOAA (National Oceanic and Atmospheric Administration) Fisheries, 02/11/2021. Sea Turtle Stranding and Salvage Network Overview: U.S Gulf of Mexico statistical zone map.
https://media.fisheries.noaa.gov/dam-migration/gulfofmexico_zone_map.png

Kind regards,
Megan Morley.



SR-CRP Webmaster - NOAA Service Account <sr-crp.webmaster@noaa.gov>



18/07/2022 19:42

To: Megan Morley

Hi Megan, What you have with the citing of NOAA NWS WPC should be fine.

On Mon, Jul 18, 2022 at 10:52 AM Megan Morley <meganjmorley@yahoo.com> wrote:

Dear Sir/Madam,

I am requesting permission to use 'Daily Weather Maps' imagery specifically the Daily U.S surface weather maps for 07/01/2010, 28/12/2012, 11/11/2014, 12/11/2014, 31/12/2017 and 16/01/2018 (7:00 a.m. E.S.T) in publication of my undergraduate BSc Oceanography and Coastal Processes dissertation at the University of Plymouth in the Plymouth Student Scientist Journal. (Please see example chart attached from 07/01/2010)

I have been citing NOAA (National Oceanic and Atmospheric Administration) Weather Prediction Center for any of the data I have utilised but please let me know if any additional recognition is required in order for me to include these images in my thesis.

Kind regards,

Megan Morley.