 

**Draft Minutes**

**53rd Annual Meeting of the**

**Canada-U.S. Groundfish Committee’s**

**Technical Subcommittee (TSC)**

**May 1-2, 2012**

Back Bay Marine Science Center

600C Shellmaker Road

Newport Beach, CA 92660

(<http://www.backbaysciencecenter.org/map_bbsc.html>)

Chair: Dave Clausen, AFSC

Host: Traci Larinto, CDFG

**Tuesday, May 1**

**I. Call to Order –** Dave Clausen, Chair, called the meeting to order at 8:15 am

**II. Appointment of Secretary** – Kenin Greer, CDFG, Los Alamitos

**III. Introductions**

Reports that were made available online before the meeting, or provided at the meeting, including the 2011 TSC report, and the 2012 reports from SWFSC, CDFG, ODFW, WDFW, NWFSC, IPHC, DFO, AFSC, ADFG and CARE. The 2012 report will be compiled by Stephen Phillips.

**List of Participants**

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**IV. Approval of 2011 Report**

The 2011 Report was approved with minor corrections at 8:45 am

**V. Approval of 2012 Agenda**

The 2012 Agenda was approved at 8:50 am. It was decided to retain the “yelloweye rockfish working group” in the agenda as a place holder, as well as “marine mammal predation on groundfish”. There was discussion on whether the TSC meeting could be shortened to just a single day, but everyone agreed that future meetings should be scheduled for a day and a half. The present TSC meeting is an exception due to the scheduling of the catch reconstruction workshop on the second day.

**VI. Working Group Reports**

1. Committee of Age Reading Experts (CARE) reported by Sandra Rosenfield, WDFW

There was no 2012 CARE meeting, and the next meeting will be in Seattle in 2013. CARE committees reports from 2011 were reviewed.

* Manual/glossary committee: The rockfish section was updated and reviewed and work will begin on new sections for hake, lingcod, and skates. Review is underway on new sections on QA/QC and Pacific halibut ageing.
* Website committee: The CARE website is hosted by PSMFC. The committee plans to add photos from the 2011 meeting, 2010 production numbers, and structure exchanges. The committee is still working on preparing an online summary of age structures by agency per the TSC to CARE recommendation in 2010. The CARE representative informed the TSC that three CARE member agencies (DFO, IPHC, and SWFSC) have agreed to compile and forward an on-line summary of archived ageing material. Two other agencies, WDFW and ODFW have also agreed, pending approval. The AFSC already maintains a publicly accessible on-line archive of its ageing collections. The ADF&G Age Lab declined to participate in the summary since they already maintain their own website.
* Charter committee: No work was done on the charter which has been in place since 2000.
* Sablefish committee: The committee discussed ageing issues with examples of known-age sablefish. The group plans to develop a technical document and to update the CARE manual.

CARE report was reviewed. The CARE mandate regarding agency exchanges was questioned by a CARE member.

CARE to CARE Recommendations

2009 – No work was done on adding information on the working groups to the charter.

2011 – CARE has made progress on the 2011 recommendations, including the manual working group, and asked all members to review the method and validation information for each species.

TSC to CARE Recommendations

See section X. of these minutes regarding a recommendation about the online summary of age structures and a thank you to CARE.

General Comments

WDFW and ODFW both acknowledge that they want to continue to participate in CARE but with only 1 or 2 agers it is difficult to increase participation.

AFSC has a new ageing manual available on the AFSC website.

1. Trawl & Longline Survey Workshop

Rick Stanley, DFO, and Malcolm Wyeth, DFO, met with staff from AFSC this year in an informal trawl workshop. Malcolm has produced minutes from the 2010 multi-agency Trawl and Setline Survey Workshop.

1. Yelloweye rockfish working group

The yelloweye rockfish working group has not formally met in recent years; however, interest in maintaining the group continues. Yelloweye rockfish continue to constrain fishing opportunities on the west coast. WDFW, ODFW and CDFG are all interested in developing nonlethal surveys (e.g., ROV surveys). DFO uses ROV data for an index of abundance (yelloweye and quillback rockfish) but does not estimate overall biomass from the data. ADFG uses ROV data for stock assessment purposes (yelloweye rockfish and lingcod). John Butler, SWFSC, has used ROV data to estimate biomass for bocaccio that was well within the bounds of the formal stock assessment. Mary Yoklavich, SWFSC, has used a manned submersible to estimate cowcod biomass. WDFW is interested in doing ROV work with the IPHC to compare the two survey methods (ROV vs. longline). ADF&G plans to do an ROV survey in late summer 2012 to assess yelloweye rockfish in Southeast Alaska.

Ian Stewart, NWFSC, recently held a workshop discussing available yelloweye rockfish data.

At the annual AFS meeting in Seattle in 2011, Liz Clarke, NWFSC, and Teresa Tsou, WDFW, convened a symposium on various non-lethal survey methods titled “Alternative Survey Strategies: Technology, Research, Methods, and Applicability”. Presentations were given on the use of ROV, AUV, manned submersibles, and drop cameras. Additionally, Mary Yoklavich, John Butler, and Liz Clarke have completed a comparative survey of ROV, AUV and manned submersibles, but the paper is not yet available.

Following further discussion on visual survey methods, the TSC recommended that a workshop be held to discuss how to use visual, nonlethal surveys in stock assessments. Kristen Green and Lynne Yamanaka drafted the recommendation. The TSC agreed that the workshop should be held in early 2013, and if that was not possible it should be held in conjunction with the Western Groundfish Conference in 2014 (see Section X., “TSC to itself” recommendations).

**VII. Other Topics**

1. Marine Reserves

*ODFW* has 3 new state marine reserves/marine protected areas proposed in legislation. This will bring the total to 5 state reserves by 2015. They have plans in place for long-term year-round monitoring & assessment in these state marine reserves/MPAs aimed at nearshore species, but not specifically groundfish species. The reserves are relatively small in size.

*CDFG* has marine protected areas (MPAs) in place in three of the four regions, and their Fish and GameCommission is in the process of adopting MPAs for the final region (North Coast). These MPAs represent 15% of all state waters which are now reserves or limited use/take areas. Monitoring plans are in place for the 3 established regions and will be developed for the fourth region once the MPAs are adopted.

*DFO* - National Ocean Policy: Canada’s recent Oceans Action Plan is set to realize the goals of the policy by maximizing the use and development of oceans technology, establishing a network of marine protected areas, implementing integrated management plans, and enhancing the enforcement of rules governing oceans and fisheries, including rules governing straddling stocks.

The Canadian groundfish industry has worked with E-NGOs to develop a “trawl footprint” to address sponge reef and coral conservation in British Columbia. This is a progressive move by industry to freeze the extent of the trawlable fishing ground in B.C. and to include sponge and coral catch limits in the trawlable areas.

1. Genetics and stock structure

*DFO* has been conducting genetics work on blackspotted/rougheye rockfish and yellowtail rockfish.

*SWFSC* has been working on larval fish genetics.

*ODFW* conducted a blue rockfish morphology pilot study and has found differences in morphology between the solid and blotched blue. No genetics identification has been done, but samples were collected for future genetics work.

1. Western Groundfish Conference 2012

Claude Dykstra reported that the 2012 Western Groundfish Conference in Seattle was well-attended with about 215 conferees. The next Western Groundfish Conference will be Feb. 10-14, 2014, in Victoria, B.C. The organizing committee will consist of Rick Stanley (co-chair), Lynne Yamanaka (co-chair) and Kate Rutherford of Canada DFO, Scott Buchanan (co-chair) and Keri Taylor of Archipelago Marine Research, and Claude Dykstra and Kirsten MacTavish of the IPHC. The IPHC holds the money used for the conference and is willing to continue doing so.

**VIII. Review of Agency Groundfish Research, Assessment, and Management**

*In general, due to the shortened meeting, the agencies spoke briefly on the topics and referred people to their agency reports for detailed information.*

1. Agency Overviews

*CDFG* took over the California Recreational Fisheries Survey sampling program from PSMFC because the state would not renew the contract (unions were opposed). They have hired almost 70 new staff to man the program, and staffing is stable now.

*SWFSC*’s Groundfish Analysis Team Lead at the Santa Cruz Lab, Steve Ralston, retired at the end of 2011 and has been replaced by John Field. Steve Lindley is now the director of the Fisheries Ecology Division at the Santa Cruz Lab.

*ODFW* is planning to move to a mandatory 11:1 staff to manager ratio, from the previous 6:1 ratio. There will be substantial restructuring cuts in the next 5 years to the Marine Resource Program within the agency. This restructuring has the potential to restrict advancement.

*WDFW* : Long-time employee Farron Wallace changed jobs in 2011 and now works for the AFSC Observer Program. Dayv Lowry is now the lead for Puget Sound groundfish and forage fish.

*DFO*‘s Tammy Corrine is on maternity leave and Neil Dayton is filling in. Upcoming retirements include Rick Stanley (2013) and Bill Eisner (September 2012).

*ADFG*’s Dave Carlisle (October 2012) and Doug Woodby are retiring; Doug has been replaced on the North Pacific Council Scientific and Statistical Committee by Sherri Dressel. Chris Siddon has been hired to take Doug’s place. He will transition into that position in fall 2012.

*AFSC* has a new Deputy Director, Steve Ignell, who previously was the Deputy Director at the Auke Bay Lab. Summer surveys are coming up and due to increasingly restrictive travel budgets this may affect travel that is not related to field work.

*IPHC* is currently in an agency review with results soon to be released. They have a new Assistant Director, Steve Keith. A database administrator position is being hired along with a replacement for Steven Hare, formerly the IPHC’s Chief Stock Assessment Scientist.

The Interjurisdictional Fisheries Act (IFA) budget was cut, which is problematic because it is the source of much funding for state fisheries agencies. PSMFC received the money, lost it all, but got some back. This may affect the TSC.

Sport fish Restoration Act (SFRA) monies may be reviewed as well.

1. Multispecies Studies
2. *CDFG* has taken over the recreational sampling program for the state.

*SWFSC* is continuing their annual midwater trawl surveys for juvenile rockfish. These data are to be used in stock assessments.

*ODFW* conducts both recreational and commercial monitoring and is hoping to increase recreational shore and estuary sampling. ODFW has completed multiple maturity and movement studies for nearshore species. There have also been baseline monitoring studies for two years at each of the two pilot marine reserves. Hypoxia has been of increasing concern off Oregon, and ODFW is working with Oregon State University to monitor this.

*WDFW* conducted ongoing monitoring as well as nearshore rockfish tagging. The agency duplicated the IPHC longline survey off Cape Flattery at a different time of the year (fall) and found more dogfish then. A bycatch study for the recreational rockfish hook-and-line fishery was conducted in WDFW Catch Area 4B. Another recreational survey was done to verify the number of boats. Also, WDFW found a difference in catch rates between what fishermen remember and what actually occurs. A new voluntary recreational private boat logbook was established to help with species identification and reporting of bycatch.

*DFO* staff continues to participate in the Strait of Georgia Ecosystem Research Initiative. DFO has developed a formal stock assessment prioritization flowchart (titled “Probability Susceptability Analyses” that includes > 300 species) to help them determine which species to assess. They conducted an email survey about recreational fishing activity.

*ADFG* continued port sampling for commercial species, the charter boat operator’s logbook program, and conducted a mail survey for sport species.

1. By Species
2. Pacific Cod

*DFO* will be conducting a Pacific cod stock assessment in 2012 to be reviewed in 2013.

*IPHC* collected length-frequencies for 15 Pacific cod per skate, and also length data for lampreys. In addition, they looked at old vs. new scars on the Pacific cod as well as on Pacific halibut in Washington and Oregon.

1. Nearshore Rockfish

*CDFG* nearshore landings have declined in recent years due to the economic downturn and cost of fuel.

*ODFW* has been conducting a black rockfish PIT tagging study for 10 years. Recovery rates have been consistent each year and show an annual exploitation rate of 3.2-4.9%. The results were included in the last stock assessment for black rockfish in 2007, but there is potential to use these data in the next assessment. ODFW conducted a pilot study to distinguish morphological differences between the two blue rockfish types (solid and blotched).

*DFO* conducted two stock assessments: yelloweye (inside management unit) and quillback rockfish (coastwide). Yelloweye rockfish was found to be 12% of initial biomass in1918. Quillback rockfish was 30% outside and 27% inside of initial biomass in 1918. Yellloweye rockfish was listed as a species “of special concern” prior to the assessment. Quillback rockfish is under consideration for a “ threatened” listing under Canada’s Species at Risk Act.

*ADFG* last conducted habitat mapping in Southeast Alaska using multibeam from a state research vessel in 2010. They are now planning an ROV survey this summer for the Central Southeast Outside Area. In ADF&G’s Westward Area (Kodiak Island, etc.), they have been conducting a tagging study of black and dark rockfish.

1. Shelf/Slope Rockfish

*CDFG* has been ageing copper rockfish using otoliths and including otolith measurements in preparation for the next stock assessment.

*SWFSC* conducted stock assessments for greenspotted, widow and blackgill rockfish, an assessment update and rebuilding analysis for bocaccio, and a status report for cowcod.

*DFO* conducted a synchronous assessment of 5 “data-poor” rockfish (splitnose, sharpchin, harlequin, redstripe and greenstriped) in addition to a bocaccio stock assessment. Yellowmouth rockfish is being assessed as to whether it should be listed as “threatened”.

*ADFG* now requires rockfish release devices on ALL recreational charter boats. They are looking at depth of capture & trauma on deck (+/- 10 min) to see if there are species-specific depth tolerance limits.

*IPHC* is conducting a study on the use of whisker hooks to reduce rockfish bycatch in the Pacific halibut fishery.

*AFSC* has conducted much research that is detailed in their report. They conducted research on rougheye rockfish barotrauma for fish taken in 600-700 feet of water. After catching the fish by longline, they used ship-board recompression chambers to gradually return the fish to their initial pressure. The majority survived and symptoms of exophthalmia and everted stomachs disappeared. Other items: there still do not appear to be any easily identifiable characteristics to visually separate rougheye and blackspotted rockfish. The 2011 Gulf of Alaska trawl survey caught by far the most silvergray rockfish ever since the time series began in 1984, and silvergray rockfish now ranks third in biomass among Gulf of Alaska rockfish.

*AFSC Kodiak lab* is doing maturity work on Pacific ocean perch, shortraker, dusky, and northern rockfishes to update previous studies.

On May 8 and 9, 2012, there will be a barotrauma workshop in Portland.

1. Thornyheads

*CDFG* reports that buyers are getting better at separating shortspine from longspine although some still report “unspecified thornyheads”; more outreach is needed to resolve this.

*AFSC* is still having significant problems with ageing thornyheads, and at this time it does not appear that production ageing is possible.

1. Sablefish

*CDFG* reported an increase in sablefish catch mainly due to increased trip limits and the implementation of catch shares management in the trawl fishery which allowed CA fishermen to trade their whiting shares for sablefish.

*DFO* will conduct a stock assessment for sablefish in 2013; ongoing surveys are detailed in their agency report. Management strategy evaluation work is ongoing.

*ADFG* has been conducting mark-recapture studies, which show recent good recruitment. Also, annual longline surveys are conducted to measure catch per unit effort and relative abundance.

*AFSC* annual longline surveys that started in 1979 continue, a maturity study was conducted near Kodiak in December 2011, and archival tag returns were analyzed to discern movements and temperature preferences – some fish showed daily vertical movement.

1. Pacific halibut and IPHC activities

*IPHC*

The genetics study continued, and work was focused on using genetics to estimate male/female ratios because the commercial fishery lands dressed fish, for which sex cannot be determined. Sex ratios for commercial landings are presently based on ratios in the IPHC longline survey.

Tagging experiments were conducted to determine location and attachment techniques for archival tags. It appears that halibut can shed internal archival tags. Also, initial studies were conducted using geomagnetic tags which hold promise for providing more detailed information on movements, but the tags may have issues with the magnetic field in the North Pacific.

An age validation study using bomb radiocarbon for the Bering Sea was concluded.

Water column profilers were used during the 2008-2011 IPHC surveys. Data from 2009 and 2010 are available online.

A pilot bait study was conducted to compare bycatch rates, size of halibut, and sex of catch. Baits included chum salmon, which has been the standard used for many years, pollock, herring, and pink salmon. Chum salmon is becoming prohibitively expensive as bait and harder to obtain. In 2012, a larger-scale, coast-wide bait experiment will be conducted.

IPHC longline survey - Yelloweye rockfish and spiny dogfish biological information are sometimes obtained, along with sablefish data. In 2011, the survey was expanded off Washington State and Oregon into shallower and deeper waters as well as into the Strait of Juan de Fuca and Puget Sound proper. In Puget Sound, bycatch was primarily sixgill shark, and no rockfish were caught. Experiments may be conducted in future years to expand the depth coverage of the survey in other areas. Permits are needed for Canada and California to expand the survey in those waters.

*WDFW* and *ODFW* take dockside samples of rockfish caught on this survey.

*DFO* has a sampler onboard during the IPHC survey to collect additional bycatch data.

*Ichthyophonus*, a parasite, which may be very prevalent in salmon and herring, was sampled at three locations in 2011 in conjunction with the USGS. The results found very high prevalence of the parasite in halibut (77% incidence in Prince William Sound and 45% coast-wide average). This study will be extended in 2012 to more areas. The USGS is also looking at the presence in herring, where the parasite has been shown to reduce growth rates.

1. Flatfish

*DFO* conducted a productivity susceptibility analysis on 17 flatfish species, and results have been published.

*AFSC* will conduct a spawning/maturity study on Bering Sea flatfish, including yellowfin sole, Alaska plaice, Greenland turbot, and arrowtooth flounder. The Bering Sea yellowfin sole fishery appears to be well managed.

1. Lingcod

*DFO*’s next lingcod stock assessment has been shifted to 2015. The University of British Columbia through an NSERC grant will be conducting a management strategy evaluation for lingcod aimed at identifying harvest options for the small boat groundfish fleet.

*AFSC* has received archival tag returns from lingcod caught and released during the sablefish longline survey but the data have not yet been analyzed.

1. Pacific Whiting (Hake)

*CDFG:* 2011 saw a huge reduction in catch (2400 t in 2010 vs. 5 t in 2011) as fishermen traded whiting quota shares for sablefish.

*DFO:*  The first joint Pacific whiting assessment was conducted under the Canada-U.S. Hake treaty and showed a strong 2008 year class in both the catch and survey. Stock abundance is estimated to be 33% of the unfished equilibrium level, which is below the target of 40%.

1. Walleye Pollock

*AFSC:* After 5 years of poor recruitment, the Bering Sea pollock stock is rebounding with an estimated biomass of 2 million metric tons. Much more information about pollock is in the AFSC report.

1. Dogfish and other sharks

There was an ageing workshop in Seattle this spring for spiny dogfish. Work has been done using vertebrae to age young fish, but it is unsure if vertebrae will work well on all ages. Vertebrae are stained and sectioned for ageing.

*DFO* has received data from pop-up tags that were placed on 8 sixgill sharks, but has not analyzed the data yet. Aerial surveys were conducted for basking sharks, an endangered species, but none were sighted. Four sightings were received through the basking shark sighting network. A population genetics study for blue shark in the North Pacific is almost complete.

*SWFSC* has been tagging blue sharks building on CDFG’s shark tagging project.

*AFSC* has received data from 45 pop-up tags on spiny dogfish but has not analyzed this yet.

1. Skates

*AFSC:* There are six skate nursery areas in the Bering Sea that are areas of concern and worthy of special protection.

*DFO* is working with Moss Landing Marine Labs and AFSC to conduct age validation for big and longnose skate using bomb radiocarbon dating. They have developed a skate identification guide that was sent to all fishermen.

*CDFG* is working with fish buyers to increase sorting of skates which is now required.

1. Grenadiers

*AFSC* has collected genetic samples from giant grenadier to look for sub-populations. Otolith morphology for this species is highly unusual because it varies substantially between fish as well as within individuals.

1. Other Species

*DFO* has an experimental fishery for hagfish.

*ODFW* has an ongoing fishery for hagfish that is closely monitored.

*CDFG* has a hagfish fishery that peaked and has started to decline. There is a new fishery for human consumption; the previous hagfish fishery was for the eelskin business.

*CDFG* completed a study to develop growth curves for kelp greenling.

There was discussion about albacore and that the West Coast treaty was under review.

1. Other Related Studies
2. Ecosystem Studies

*ODFW* is collaborating with OSU to map state territorial waters and has about 66% completed, including about 75% of the rocky habitat. A south coast kelp biomass survey was completed in 2011.

*ADFG* is doing some bioenergetics work and food web modeling.

*AFSC:* The North Pacific Research Board has been funding a large-scale research study in the Bering Sea, the “Bering Sea Integrated Ecosystem Research Program” from 2007-2012. A similar study in the Gulf of Alaska, the “Gulf of Alaska Integrated Ecosystem Research Program” began in 2010 and will last until 2014. The AFSC has been a major participant in both studies.

1. Other Items
2. Marine mammal predation on groundfish

Claude Dykstra (IPHC) talked about studying marine mammal depredation on groundfish during the AFSC sablefish and IPHC longline surveys. Depredation by killer whales is overtly seen (lips or heads remain on the hooks), whereas depredation by sperm whales is not as evident but also occurs. Attempts at deterrence, such as using sonic devices, have not been successful. The whales do not depredate on fish that are in longline snarls, although the reason for this is unclear.

IX. Progress on 2011 Recommendations

1. From TSC to itself

*The Scientific and Statistical Committee of the Pacific Council has requested Washington, Oregon, and California to reconstruct groundfish catch histories as far back as possible. Canada has also undertaken catch reconstructions for some rockfish species and will proceed with reconstructions for all groundfish species. The TSC in its discussions noted that each agency is doing this independently and recommends a possible workshop to be held to discuss, compare and develop best practices of reconstructing species-specific catches from grouped species landing data. The goal of the workshop would be to produce consistent methods among agencies. TSC members are to investigate the utility of such a workshop and the possibility of adding a day for initial discussion at the PacFin meeting already scheduled in October.*

Traci Larinto (CDFG) organized this workshop, which was held in Newport Beach, CA on May 2, 2012 immediately following the conclusion of the TSC meeting.

X. 2012 Recommendations

1. From TSC to itself

The TSC recommends that a workshop be held on the topic of developing ROV surveys for use in rockfish stock assessments. Although there have been ROV/submersible workshops in the past, including a non-lethal survey symposium at AFS in 2011, there is interest in holding another workshop specific to ROV rockfish surveys. Many agencies and universities are conducting ROV surveys on the west coast, but few are incorporating these data into stock assessments. This workshop would provide the opportunity to learn from other research groups’ ROV survey successes and failures and make progress towards using ROV data as a non-lethal method for stock assessment. To maximize attendance, the preferred location and date for this workshop is in Seattle in late winter or spring of 2013. Potential workshop topics include habitat mapping, ROV survey design, new video technology, data analysis (including post-processing of video data). This agenda would ideally take place over a two day period. If necessary, the workshop could be tied into the TSC May meeting in 2013 or the Western Groundfish Conference in 2014. Kristen Green, Lynne Yamanaka, and Theresa Tsou offered to collaborate on workshop planning.

1. TSC to CARE

The TSC thanks CARE for their continued good work and would like to acknowledge their continued work to support the online posting of otolith archives by member agencies in light of their many other work pressures.

1. TSC to Parent Committee

The TSC recommended that the Parent Committee support development of a workshop on how to incorporate visual (e.g., ROV) surveys into stock assessments.

XI. Selection of Next Chairperson and Schedule and Location of 2013 Meeting

Traci Larinto, CDFG, was selected as the next Chairperson. The 2013 TSC meeting will be held in Seattle, WA hosted by AFSC at the NOAA facility on Sandpoint Way April 30-May 1, 2013.

XII. Adjourn ~5:00 p.m. May 1, 2012.

**Minutes of the 53rd Annual Meeting**

**of the**

**Canada-U.S. Groundfish Committee**

**(a.k.a. “Parent Committee”)**

1. Call to Order

Mr.Stephen Phillips, PSMFC, represented the United States and Lynne Yamanaka, DFO, represented Canada. The meeting was called to order at 8:22 am, Wednesday, May 2, 2012.

1. Rapporteur

Kenin Greer, CDFG, was appointed secretary for the meeting.

1. The Agenda

The agenda, following the format of previous meetings, was approved.

1. The 2010 Parent Committee meeting minutes

The Parent Committee minutes were adopted as presented

1. The 2009 Parent Committee recommendations

There were no Parent Committee recommendations

1. 2010 Parent Committee Recommendations

Parent Committee agrees with the 2012 TSC recommendation to support hosting a workshop on using visual survey data in stock assessments.

1. 2011 Meeting Location

Parent Committee agrees with the proposed location and schedule for the 2013 TSC and Parent Committee Meeting: Seattle, WA, Tuesday April 30 and Wednesday May 1, 2013. AFSC has offered to host the meeting.

1. Other Business
   1. The Parent Committee thanks Dave Clausen for his 20 plus years of service on the TSC and thanks him for his work as chairman at the TSC meeting.
   2. The Parent Committee thanks PSMFC for its ongoing support for the Annual TSC meetings.
   3. The TSC thanked Traci Larinto for hosting the TSC meeting and shuttling folks to and from the meeting site.
2. The Parent Committee meeting was adjourned at 8:25 am, Wednesday May 2, 2012.