

## Sea Urchin Zone Council Meeting Summary March 23, 2017 in Ellsworth, ME

**DMR staff:** Trisha Cheney, Maggie Hunter, Robert Russell, Carl Wilson, Mike Kersula, Troy Dow (MPO) and Melissa Smith.

**SUZC members present:** Brian Preney, Steve Eddy, Alan Knowlton, Larry Harris, Joe Leask, John Dray, Sinuon Chau, Tim Peterson, Clint Richardson, Chuon Muth, and Chenda Doeur.

**SUZC members absent:** Teresa Johnson and Tracey Sawtelle

**Public:** Butch Harris, Brad Scott, Sam Samoin, Kim Ovitz, Greg Brown, Abby ? (UME Environmental Studies student), Marcus Jones, Fred Gray, Paul Cox, Jim Ackley, Tom Pottle, Thomas Pottle, David Foster, Atchan Tamaki, David Foster, Justin Gebo, David Tarr, Joe Grego, and Brian Swartz.

### Sea Urchin Zone Council Research Subcommittee Meeting Summary

**Meeting commenced at 1:16pm.**

Kim Ovitz provided a brief update on the progress of her harvester survey. Over 300 surveys were sent out and 43 have been returned. Of those received, 2 were from inactive license holders. Majority of responses were from Zone 2, and Washington County. Ms. Ovitz intends to have a technical report completed by May. She intends to present a full summary at a future Sea Urchin Zone Council meeting.

L. Harris relayed that no additional information is available yet regarding the Saltonstall-Kennedy Program grant proposal, which was due December 9<sup>th</sup>. With regard to the ongoing Cat Ledges experimental area, there was communication that the area may have experienced poaching during the month of December. It was unknown whether the closure has been visited by a collaborating partner since December.

L. Harris made mention that he predicts an early settlement this season and that larval collectors should be in the water by May 1.

C. Wilson updated the group on the Blue Hill Bay Experimental area [**Appendix A**], a 5 year research project that is expected to begin this September, 2017. From last year's discussion on this project, there has been a scaling back on scope and objectives. Also, more affordable trackers have become available. The prominent research objectives are to: 1) better understand the impact of fishing on the resource; 2) develop a survey similar to fisher's scouting methods, and; 3) initiate seasonal roe monitoring. Available resources allow for purchasing of 30 tracker units, with priority for units given to fishermen with landings history in the Blue Hill Bay area, according to harvester logbooks during the 2013/14 and 2014/15 seasons. The project will require regulatory changes to designate Blue Hill Bay a limited access area which requires tracker installation/use for access and will have a five year sunset.

C. Wilson announced on March 30<sup>th</sup> at 10am, there will be two thirty-minute presentations concerning kelp, urchins, climate change and resilience of altered ecosystems taking place at the DMR Boothbay Laboratory. Dr. Doug Rasher is a new Senior Research Scientist in East Boothbay (Bigelow Labs) and will be presenting work from the Aleutian Islands. Thew Suskiewicz is a Post-Doc with research experience here in Maine and the Gulf of St. Lawrence.

[To join this presentation via webinar, use the following link: <http://stateofmaine.adobeconnect.com/kelp/> or, via phone conference number: 877-455-0244 with Participant Code: 5516712334].

## Sea Urchin Zone Council Meeting

Meeting commenced at 3:01pm

### Welcome & Introductions

Acting Chair S. Chau welcomed the group and asked everyone to introduce themselves around the room, both council members and audience. During the final introductions, B. Preney arrived and resumed Chair duties.

### Jan 25, 2017 Meeting Summary

C. Richardson moved to accept; J. Leask seconded the motion.

**VOTE: UNANIMOUS. Approval of minutes passed.**

### DMR Updates: 2016/2017 Season Update

M. Hunter presented information from the current season's landings [**Appendix B**]. Total landings for the 2016/17 season were 2,089,888 pounds with an associated value of \$6,848,301. The last season that had a value over \$6 million was in 2003. Also, average price for this season was \$3.29, a new industry record. For the 2016/17 season, there were 199 active harvesters, approximately 2/3 of available urchin licenses (305 total).

Row content was lower in Zone 1 than Zone 2, with an average of 8.6% and 12.1%, respectively. B. Preney confirmed the low row content in Zone 1 with his personal observations and suggested conserving harvest days for colder water so to harvest a better product.

J. Leask asked for a breakdown of the data to illustrate frequency of days fished by divers.

### DMR Updates: Legislative Items

T. Cheney updated the council regarding the 128<sup>th</sup> session of the Legislature.

- No increase in license fees.
  - No impact on the SURF account; account will continue as is.
  - Q: How much will extend SURF account with Trish not coming out of funds?
- Owner-operator
  - Bill is still within the Reviser's Office and final proposed language has yet to be released for public hearing
  - Mid to late April when this bill has public hearings (on Mondays or Wednesdays in Cross building, Augusta)
  - Request made by council to provide a notice for the scheduled date (GovDelivery notice)
  - Q by M. Jones: – what is this bill trying to accomplish?
    - Current situation allows that for a license holder to not be the boat operator. Requiring an owner/operator is expected to increase stewardship of the resource.
    - Recently re-activated activity in the scallop fishery has been observed with boat operators searching for a license holder to partner with.
    - May bring about a mechanism for new entry into the Urchin Fishery

The Joint Standing Committee on Marine Resources (MRC) has a number of bills this session that pertain to the sea urchin fishery. For more information, please go to MRC website: <http://legislature.maine.gov/committee/#Committees/MAR> . Also, to get on the MRC newsletter distribution list for notices on upcoming work sessions and public hearings, please reach out to Julia Brown at [Julia.Brown@Legislature.Maine.gov](mailto:Julia.Brown@Legislature.Maine.gov) to be included into the GovDelivery for these topics.

### DMR Updates: Blue Hill Bay Experimental Area

T. Cheney gave a brief summary on Carl's presentation that occurred during the research subcommittee [**see Appendix A**]. A total of 14 harvesters have been identified in the area and will be given priority for trackers. Additional participants will be supplied with a tracker on a "1<sup>st</sup> come – 1<sup>st</sup> serve" basis. The estimate for how many harvesters have historically been active in the area is based on landings (harvester logbooks) from seasons 2013/14 and 2014/15. If additional harvesters want to participate in collecting data on fishing activity in the Blue Hill Bay area, beyond the available 30 trackers, they can purchase their own tracker to enter the limited access area. Trackers may also be considered a benefit to your insurance provider.

The project will require regular rulemaking to designate Blue Hill Bay a limited access area. The proposed regulation will stipulate that to enter Blue Hill Bay, an installed tracker will be required. This regulation is proposed to sunset in five years.

### **DMR Updates: Pick your Days Update**

M. Smith gave an update on the dealer calendar draft setting on March 16, 2017. C. Muth and S. Chau attended the meeting and together drafted a Zone 2 calendar [**Appendix C**]. The calendar has 45 available harvest days for each an early and a late Zone 2 season. This was used as a starting point for the season setting discussion.

### **Discussion: Picking Days for 2017-2018 Season**

B. Preney directed everyone to break into groups: Zone 1 – early and late by each gear (4 calendars); Zone 2 – early and late (2 calendars) to further discuss setting the open harvest dates for the upcoming season. These smaller workgroups took about an hour to complete.

Once complete, 6 calendars were drafted for review [**Appendix D**]: Zone 1 Early Dive, Zone 1 Late Dive, Zone 1 Early Drag, Zone 1 Late Drag, Zone 2 Early combined gear, and Zone 2 Late combined gear.

- Zone 1 Early Dive – 20 days: no additional comments
- Zone 1 Late Dive – 20 days: no additional comments
- Zone 1 Early Drag – 20 days: no additional comments
- Zone 1 Late Drag – 20 days: no additional comments
- Zone 2 Early Dive/Drag – 45 days: Comment to open Dec 4 for harvest and move Dec 7 to closed status.
- Zone 2 Late Dive/Drag – 45 days: Several comments surrounding the placement of open harvest days within the work week, as to balance available working days with other overlapping fisheries (scallops).
  - J. Ackley – Compromise with draft schedule was a compromise with the dealer’s draft, not with the dragger component between the divers and draggers. Calendar doesn’t allow for optimal harvest dates for draggers Downeast. Zone 2 Drag calendar would be preferential to open harvest dates on Wednesday through Friday of each week. For several years now, the calendar has started on Mondays. It would be a fair compromise to begin later in the week for draggers.
  - M. Jones – Traditionally divers have always gone Mondays, Tuesdays and Wednesdays. Moving days to Tuesdays, Wednesdays and Thursdays is a compromised between draggers and divers, as both gear types will have overlap with the scallop calendars.
  - F. Gray – This is an urchin meeting and we should be setting the urchin calendar. It’s not a scallop meeting.

### **Motion to approve ALL calendars**

C. Richardson moved to accept; J. Leask seconded the motion.

**VOTE: UNANIMOUS. Approval of calendars passed.**

### **Other Business**

Meeting adjourned at 5:30 pm. No follow-up meeting scheduled at this time. However, there was discussion that the next meeting will be held to hear further on science updates, including Kim Ovitz’s survey data, an update on Cat Ledges and further discussion on the Blue Hill Bay experimental area.

J. Leask motioned to adjourn meeting; C. Richardson seconded the motion.

**VOTE: UNANIMOUS. Meeting adjourned.**

## Appendix A

### Blue Hill Bay Experiment – Carl Wilson

#### The DMR believes

- The resource and the fishery have a future
  - We are in it for the long haul
  - A viable fishery is important for the State of Maine
- The long-term goal is to rebuild the resource to 2001 levels and match a 2015 fishing rate to it
  - 4 to 5 million pound fishery
- Short-term experiments can inform goal
  - Develop a common language to proceed

#### Why an experimental area

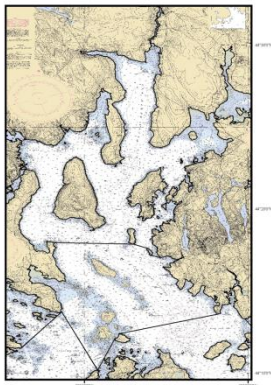
- Need to bracket:
  - Nuclear option (no fishing)
  - Status quo
  - Manipulation
- Monitor changes
  - From the DMR perspective
  - From industry perspective

#### Experimental Area – Blue Hill Bay

- Year 1 – open
  - Evaluate fishing patterns
  - Develop survey methods
  - Work with industry to identify closures
- Year 2 – 50% closure
- Year 3 – 25% closure
- Year 4 – 12% closure
- Year 5 - open

#### Timeline

- Rule making
- Harvester List
- Tracker installation
- Season Starts



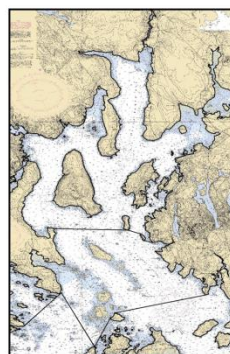
#### Blue Hill Bay Experimental Area Questions to be addressed - 5 years

- Impact of fishing – vessel tracking
- Changes in the resource
  - DMR dive survey
  - New industry “designed” survey
- Seasonal Roe monitoring
- Settlement
- Opportunity for enhancement experiments

#### What defines the area

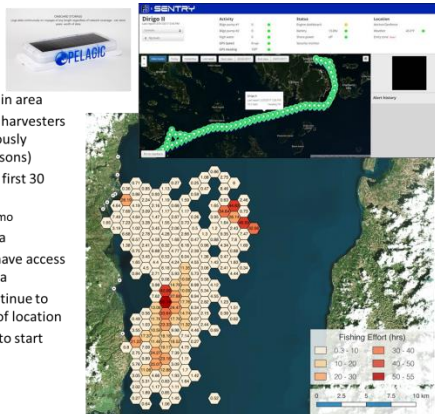
##### Why Blue Hill Bay

- Desire to work in a productive area
  - Approximately 5% of landings
- Mix of sizes from DMR survey
- Ability to access and monitor
- Scallop rotation
- Minimize impact to industry



##### Trackers

- Required to fish in area
- Priority given to harvesters who have previously reported (3- seasons)
- DMR will supply first 30 units + data
  - \$250 + \$20/mo
- Confidential data
- Harvesters will have access to their own data
- Trackers will continue to ping regardless of location
- Ping rate 1/min to start



**Appendix B**

M. Hunter's preliminary final data for 2016-17 season metrics (landings, value, and roe content).

**Maine Sea Urchin Landings In Pounds**

2014-2015 State		2015-2016 State		2016-2017 Maine Sea Urchin Landings (lbs) by Zone, Gear, and Month*					
				Zone 1		Zone 2		State Total	
				Drag & Dive**	Dive & Rake	Drag	Total		
Sep	198,955	Sep	183,396	Sep	139,974	64,523	64,523	204,497	
Oct	374,914	Oct	274,394	Oct	151,567	158,699	310,266	310,266	
Nov	164,891	Nov	237,575	Nov	134,618	151,138	285,756	285,756	
Dec	658,335	Dec	617,972	Dec	160,117	227,324	438,147	598,264	
Jan	176,893	Jan	244,981	Jan	168,792	108,418	277,210	277,210	
Feb	99,049	Feb	194,034	Feb	142,189	113,943	256,132	256,132	
Mar	365,706	Mar	297,642	Mar	88,134	69,629	157,763	157,763	
<b>Total</b>	<b>2,038,743</b>	<b>Total</b>	<b>2,049,994</b>	<b>Total</b>	<b>300,091</b>	<b>977,147</b>	<b>812,650</b>	<b>1,789,797</b>	<b>2,089,888</b>

\* Preliminary data through 3/21/17  
 \*\* Due to Confidentiality Zone 1 drag data for December, February, and March have been combined with Zone 1 dive data for December

**Maine Sea Urchin Value in Dollars**

2014-2015 State		2015-2016 State		2016-2017 Maine Sea Urchin Value (\$) by Zone, Gear, and Month*					
				Zone 1		Zone 2		State Total	
				Drag & Dive**	Dive & Rake	Drag	Total		
Sep	\$413,376	Sep	\$332,053	Sep	\$290,941	\$201,592	\$201,592	\$492,533	
Oct	\$984,308	Oct	\$821,208	Oct	\$422,062	\$499,821	\$921,883	\$921,883	
Nov	\$507,160	Nov	\$650,844	Nov	\$490,223	\$557,541	\$1,047,764	\$1,047,764	
Dec	\$1,951,826	Dec	\$1,849,953	Dec	\$358,838	\$897,540	\$821,640	\$1,719,180	
Jan	\$442,670	Jan	\$642,555	Jan	\$653,711	\$421,936	\$1,075,647	\$1,075,647	
Feb	\$273,756	Feb	\$604,491	Feb	\$450,203	\$336,688	\$786,891	\$786,891	
Mar	\$1,030,103	Mar	\$1,009,748	Mar	\$252,405	\$193,160	\$445,565	\$445,565	
<b>Total</b>	<b>\$5,603,199</b>	<b>Total</b>	<b>\$5,910,852</b>	<b>Total</b>	<b>\$649,779</b>	<b>\$3,367,736</b>	<b>\$2,830,786</b>	<b>\$6,198,522</b>	<b>\$6,848,301</b>

\* Preliminary data through 3/21/17  
 \*\* Due to Confidentiality Zone 1 drag data for December, February, and March have been combined with Zone 1 dive data for December

**Maine Sea Urchin Price per Pound in Dollars**

2014-2015 State		2015-2016 State		2016-2017 Maine Sea Urchin Price (\$/lb) by Zone, Gear, and Month*					
				Zone 1		Zone 2		State Total	
				Drag & Dive**	Dive & Rake	Drag	Total		
Sep	\$2.08	Sep	\$1.78	Sep	\$2.09	\$3.12	\$3.12	\$2.38	
Oct	\$2.58	Oct	\$2.98	Oct	\$2.77	\$3.14	\$2.95	\$2.95	
Nov	\$3.01	Nov	\$2.72	Nov	\$3.58	\$3.68	\$3.63	\$3.63	
Dec	\$2.97	Dec	\$3.04	Dec	\$2.25	\$3.89	\$3.91	\$3.59	
Jan	\$2.55	Jan	\$2.67	Jan	\$3.90	\$3.85	\$3.88	\$3.88	
Feb	\$2.76	Feb	\$3.12	Feb	\$3.17	\$2.96	\$3.07	\$3.07	
Mar	\$2.79	Mar	\$3.43	Mar	\$2.86	\$2.78	\$2.82	\$2.82	
<b>Total</b>	<b>\$2.69</b>	<b>Total</b>	<b>\$3.88</b>	<b>Total</b>	<b>\$2.15</b>	<b>\$3.44</b>	<b>\$3.49</b>	<b>\$3.46</b>	<b>\$3.29</b>

\* Preliminary data through 3/21/17  
 \*\* Due to Confidentiality Zone 1 drag data for December, February, and March have been combined with Zone 1 dive data for December

**Maine Sea Urchin Roe Index (%)**

2014-2015 State		2015-2016 State		2016-2017 Maine Sea Urchin Roe (%) by Zone, Gear, and Month*					
				Zone 1		Zone 2		State Total	
				Drag & Dive**	Dive & Rake	Drag	Total		
Sep	8.3	Sep	7.7	Sep	7.9	11.5	11.5	8.9	
Oct	12.0	Oct	12.2	Oct	10.9	11.9	11.4	11.4	
Nov	12.3	Nov	12.0	Nov	11.6	11.8	11.7	11.7	
Dec	12.0	Dec	11.9	Dec	9.6	12.1	11.8	11.9	
Jan	12.9	Jan	11.6	Jan	12.9	11.6	12.4	12.4	
Feb	13.2	Feb	13.6	Feb	13.5	11.8	12.7	12.7	
Mar	13.2	Mar	13.3	Mar	13.9	11.9	13.0	13.0	
<b>Total</b>	<b>11.9</b>	<b>Total</b>	<b>11.8</b>	<b>Total</b>	<b>8.6</b>	<b>12.3</b>	<b>11.8</b>	<b>12.1</b>	<b>11.6</b>

\* Preliminary data through 3/21/17  
 \*\* Due to Confidentiality Zone 1 drag data for December, February, and March have been combined with Zone 1 dive data for December

**Number of Active Urchin Harvesters (sold at least two lots)**

	2013-14			2016-17		
	Zone 1	Zone 2	Total	Zone 1	Zone 2	Total
Divers	37	78	115	33	76	109
Dragners	6	80	86	8	82	90
Rakers	0	3	3	0	0	0
<b>Total</b>	<b>43</b>	<b>161</b>	<b>204</b>	<b>41</b>	<b>158</b>	<b>199</b>

*\*Preliminary data through 3/21/17*

Appendix C

Draft Zone 2 early & late calendars developed at the March 16 Buyer/Processor meeting in Portland, ME.

## DRAFT Buyer/Processor EARLY ZONE 2 Calendar

September 2017							October 2017							November 2017							December 2017						
S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S
					1	2	1	2	3	4	5	6	7				1	2	3	4						1	2
3	4	5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9
10	11	12	13	14	15	16	15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16
17	18	19	20	21	22	23	22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23
24	25	26	27	28	29	30	29	30	31					26	27	28	29	30			24	25	26	27	28	29	30
																					31						
<b>6</b>							<b>11</b>							<b>13</b>							<b>15</b>						
January 2018							February 2018							March 2018							<b>Total Days</b>						
S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	<b>45</b>						
	1	2	3	4	5	6					1	2	3					1	2	3							
7	8	9	10	11	12	13	4	5	6	7	8	9	10	4	5	6	7	8	9	10							
14	15	16	17	18	19	20	11	12	13	14	15	16	17	11	12	13	14	15	16	17							
21	22	23	24	25	26	27	18	19	20	21	22	23	24	18	19	20	21	22	23	24							
28	29	30	31				25	26	27	28				25	26	27	28	29	30	31							
<b>0</b>							<b>0</b>							<b>0</b>													

## DRAFT Buyer/Processor LATE ZONE 2 Calendar

September 2017							October 2017							November 2017							December 2017						
S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S
					1	2	1	2	3	4	5	6	7				1	2	3	4						1	2
3	4	5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9
10	11	12	13	14	15	16	15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16
17	18	19	20	21	22	23	22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23
24	25	26	27	28	29	30	29	30	31					26	27	28	29	30			24	25	26	27	28	29	30
																					31						
<b>0</b>							<b>0</b>							<b>0</b>							<b>13</b>						
January 2018							February 2018							March 2018							<b>Total Days</b>						
S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	<b>45</b>						
	1	2	3	4	5	6					1	2	3					1	2	3							
7	8	9	10	11	12	13	4	5	6	7	8	9	10	4	5	6	7	8	9	10							
14	15	16	17	18	19	20	11	12	13	14	15	16	17	11	12	13	14	15	16	17							
21	22	23	24	25	26	27	18	19	20	21	22	23	24	18	19	20	21	22	23	24							
28	29	30	31				25	26	27	28				25	26	27	28	29	30	31							
<b>12</b>							<b>13</b>							<b>7</b>													

Appendix D

Calendars approved by the Sea Urchin Zone Council for consideration by the DMR for proposed rulemaking at the March 23 meeting in Brewer, ME.

### ZONE 1 EARLY DIVE

September 2017							October 2017							November 2017							December 2017						
S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S
					1	2	1	2	3	4	5	6	7				1	2	3	4						1	2
3	4	5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9
10	11	12	13	14	15	16	15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16
17	18	19	20	21	22	23	22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23
24	25	26	27	28	29	30	29	30	31					26	27	28	29	30			24	25	26	27	28	29	30
																					31						
18							2							0							0						

January 2018							February 2018							March 2018							Total Days
S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	
	1	2	3	4	5	6					1	2	3					1	2	3	20
7	8	9	10	11	12	13	4	5	6	7	8	9	10	4	5	6	7	8	9	10	
14	15	16	17	18	19	20	11	12	13	14	15	16	17	11	12	13	14	15	16	17	
21	22	23	24	25	26	27	18	19	20	21	22	23	24	18	19	20	21	22	23	24	
28	29	30	31				25	26	27	28				25	26	27	28	29	30	31	
0							0							0							

### ZONE 1 LATE DIVE

September 2017							October 2017							November 2017							December 2017						
S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S
							1	2	3	4	5	6	7				1	2	3	4						1	2
3	4	5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9
10	11	12	13	14	15	16	15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16
17	18	19	20	21	22	23	22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23
24	25	26	27	28	29	30	29	30	31					26	27	28	29	30			24	25	26	27	28	29	30
																					31						
0							0							0							12						

January 2018							February 2018							March 2018							Total Days
S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	
	1	2	3	4	5	6					1	2	3					1	2	3	20
7	8	9	10	11	12	13	4	5	6	7	8	9	10	4	5	6	7	8	9	10	
14	15	16	17	18	19	20	11	12	13	14	15	16	17	11	12	13	14	15	16	17	
21	22	23	24	25	26	27	18	19	20	21	22	23	24	18	19	20	21	22	23	24	
28	29	30	31				25	26	27	28				25	26	27	28	29	30	31	
0							8							0							

## ZONE 1 EARLY DRAG

September 2017							October 2017							November 2017							December 2017						
S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S
					1	2	1	2	3	4	5	6	7				1	2	3	4						1	2
3	4	5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9
10	11	12	13	14	15	16	15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16
17	18	19	20	21	22	23	22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23
24	25	26	27	28	29	30	29	30	31					26	27	28	29	30			24	25	26	27	28	29	30
																					31						
0							0							0							20						

January 2018							February 2018							March 2018						
S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S
	1	2	3	4	5	6					1	2	3					1	2	3
7	8	9	10	11	12	13	4	5	6	7	8	9	10	4	5	6	7	8	9	10
14	15	16	17	18	19	20	11	12	13	14	15	16	17	11	12	13	14	15	16	17
21	22	23	24	25	26	27	18	19	20	21	22	23	24	18	19	20	21	22	23	24
28	29	30	31				25	26	27	28				25	26	27	28	29	30	31
0							0							0						

■ HOLIDAY  
■ CHINESE NEW YEAR

**Total Days**  
20

## ZONE 1 DRAG LATE

September 2017							October 2017							November 2017							December 2017						
S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S
					1	2	1	2	3	4	5	6	7				1	2	3	4						1	2
3	4	5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9
10	11	12	13	14	15	16	15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16
17	18	19	20	21	22	23	22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23
24	25	26	27	28	29	30	29	30	31					26	27	28	29	30			24	25	26	27	28	29	30
																					31						
0							0							0							0						

January 2018							February 2018							March 2018						
S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S
	1	2	3	4	5	6					1	2	3					1	2	3
7	8	9	10	11	12	13	4	5	6	7	8	9	10	4	5	6	7	8	9	10
14	15	16	17	18	19	20	11	12	13	14	15	16	17	11	12	13	14	15	16	17
21	22	23	24	25	26	27	18	19	20	21	22	23	24	18	19	20	21	22	23	24
28	29	30	31				25	26	27	28				25	26	27	28	29	30	31
0							12							8						

■ HOLIDAY  
■ CHINESE NEW YEAR

**Total Days**  
20



## ZONE 2 EARLY DIVE 2017 - 2018 Calendar

September 2017							October 2017							November 2017							December 2017						
S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S
					1	2	1	2	3	4	5	6	7	5	6	7	8	9	10	11	3	4	5	6	7	8	9
3	4	5	6	7	8	9	8	9	10	11	12	13	14	12	13	14	15	16	17	18	10	11	12	13	14	15	16
10	11	12	13	14	15	16	15	16	17	18	19	20	21	19	20	21	22	23	24	25	17	18	19	20	21	22	23
17	18	19	20	21	22	23	22	23	24	25	26	27	28	26	27	28	29	30			24	25	26	27	28	29	30
24	25	26	27	28	29	30	29	30	31												31						
9							14							13							9						

January 2018							February 2018							March 2018						
S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S
	1	2	3	4	5	6					1	2	3					1	2	3
7	8	9	10	11	12	13	4	5	6	7	8	9	10	4	5	6	7	8	9	10
14	15	16	17	18	19	20	11	12	13	14	15	16	17	11	12	13	14	15	16	17
21	22	23	24	25	26	27	18	19	20	21	22	23	24	18	19	20	21	22	23	24
28	29	30	31				25	26	27	28				25	26	27	28	29	30	31
0							0							0						

Total Days **45**

## ZONE 2 LATE

September 2017							October 2017							November 2017							December 2017						
S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S
					1	2	1	2	3	4	5	6	7				1	2	3	4					1	2	
3	4	5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9
10	11	12	13	14	15	16	15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16
17	18	19	20	21	22	23	22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23
24	25	26	27	28	29	30	29	30	31					26	27	28	29	30			24	25	26	27	28	29	30
																					31						
0							0							0							12						

January 2018							February 2018							March 2018						
S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S	S	M	Tu	W	Th	F	S
	1	2	3	4	5	6					1	2	3					1	2	3
7	8	9	10	11	12	13	4	5	6	7	8	9	10	4	5	6	7	8	9	10
14	15	16	17	18	19	20	11	12	13	14	15	16	17	11	12	13	14	15	16	17
21	22	23	24	25	26	27	18	19	20	21	22	23	24	18	19	20	21	22	23	24
28	29	30	31				25	26	27	28				25	26	27	28	29	30	31
14							12							7						

Total Days **45**