



ORGANISMO NACIONAL DE SANIDAD PESQUERA

SUB DIRECCIÓN DE SUPERVISIÓN ACUÍCOLA

Concesiones de Cultivo de *Argopecten purpuratus* "concha de abanico"

Monitoreo de Fitoplancton Potencialmente Tóxico

Departamentos de Piura, La Libertad y Ancash / Zonas: 002 Guaynuma, 004 Isla Tortugas, 009 Salinas, 010 Nonura, 017 Culebras, 011 Bahía Samanco, 012 Bahía Sechura

Análisis Cuantitativo de Fitoplancton (Nº cel/L)

1ra Semana



Semana: 05 al 11 de julio de 2015

Fechas: 07, 10 y 11 de julio de 2015

ZONAS	002 GUAYNUNA															004 ISLA TORTUGAS			009 SALINAS			010 NONURA								
ESTACION	01-A-GUA**			01-B-GUA**			01-C-GUA**			02-D-GUA**			02-E-GUA**			01-A-TOR			01-A-SAL**			01-A-NON*			01-B-NON*			01-C-NON*		
PROFUNDIDAD (m)	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	....	....	....	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15
TEMPERATURA (°C)	19.4	18.7	18.0	19.0	18.5	18.1	19.2	18.2	17.9	19.4	18.7	18.4	19.6	18.7	18.1	....	....	....	19.7	18.7	18.4	20.7	20.6	20.6	19.9	19.8	19.7	19.8	19.6	19.6
DIATOMEAS																														
Grupo <i>Pseudo-nitzschia delicatissima</i>	13200	8240	2720	4800	7840	5200	3040	2800	1840	2400	4240	1120	1120	1280	1440	S/M	S/M	S/M	720	2080	960	320	240	640	560	240	160	80	80	80
Grupo <i>Pseudo-nitzschia seriata</i>	60960	25440	5520	22160	9840	4480	41200	14000	2640	42800	22160	5120	27360	21600	4320	S/M	S/M	S/M	113537	58811	9600	0	80	0	0	0	0	0	0	0
DINOFLAGELADOS																														
<i>Alexandrium minutum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Alexandrium monilatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Alexandrium ostenfeldii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Alexandrium peruvianum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Alexandrium sp.</i>	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Azadinium spinosum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cochlodinium polykrikoides</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Dinophysis acuminata</i>	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Dinophysis caudata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	80	0	0	0	0
<i>Dinophysis rotundata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	40
<i>Dinophysis tripos</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Gonyaulax spinifera</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Karenia sp.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Karlodinium cf. veneficum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Lingulodinium polyedrum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Prorocentrum lima</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Prorocentrum minimum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Protoceratium reticulatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Protoperidinium crassipes</i>	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
FITOFLAGELADOS																														
<i>Heterosigma akashiwo</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0

S/M: Sin Monitoreo

Fuente: * Entidad de Apoyo CERPER S.A.

** Entidad de Apoyo ACUILAB S.A.



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SUB DIRECCIÓN DE SUPERVISIÓN ACUÍCOLA

Concesiones de Cultivo de *Argopecten purpuratus* "concha de abanico"

Monitoreo de Fitoplancton Potencialmente Tóxico

Departamentos de Piura, La Libertad y Ancash / Zonas: 002 Guaynuma, 004 Isla Tortugas, 009 Salinas, 010 Nonura, 017 Culebras, 011 Bahía Samanco, 012 Bahía Sechura

Análisis Cuantitativo de Fitoplancton (Nº cel/L)

1ra Semana



Semana: 05 al 11 de julio de 2015

Fechas: 07, 09 y 11 de julio de 2015

ZONAS	017 CULEBRAS																		012 BAHIA DE SECHURA			
ESTACION	01-A-CUL			01-B-SAM**						01-C-SAM*			02-A-SAM**			02-B-SAM**			12-B-SECH**			13-A-SECH
PROFUNDIDAD (m)	....	....	....	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	....
TEMPERATURA (°C)	....	....	....	20.9	19.4	18.9	22.5	20.0	19.3	21.3	20.5	19.1	18.8	18.4	18.2	18.6	18.1	17.5	22.0	18.8	18.2	....
DIATOMEAS																						
Grupo <i>Pseudo-nitzschia delicatissima</i>	S/M	S/M	S/M	560	1280	4160	320	400	320	240	680	240	1200	1920	2400	1360	1480	2280	280	120	200	S/M
Grupo <i>Pseudo-nitzschia seriata</i>	S/M	S/M	S/M	880	600	600	120	160	280	440	200	120	240	560	1200	480	400	1040	0	0	0	S/M
DINOFLAGELADOS																						
<i>Alexandrium minutum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Alexandrium monilatum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Alexandrium ostenfeldii</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Alexandrium peruvianum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Alexandrium</i> sp.	S/M	S/M	S/M	0	40	0	40	0	0	40	40	0	0	0	0	0	0	0	0	0	0	S/M
<i>Azadinium spinosum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Cochlodinium polykrikoides</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Dinophysis acuminata</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Dinophysis caudata</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	80	0	0	0	0	0	S/M
<i>Dinophysis rotundata</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Dinophysis tripos</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Gonyaulax spinifera</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	S/M
<i>Karenia</i> sp.	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Karlodinium</i> cf. <i>veneficum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Lingulodinium polyedrum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Prorocentrum lima</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Prorocentrum minimum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Protoceratium reticulatum</i>	S/M	S/M	S/M	120	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Protoperdinium crassipes</i>	S/M	S/M	S/M	0	0	0	0	0	0	40	40	0	0	0	0	0	0	0	0	0	0	S/M
FITOFLAGELADOS																						
<i>Heterosigma akashiwo</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M

S/M: Sin Monitoreo

Fuente: * Entidad de Apoyo CERPER S.A.

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Análisis Cuantitativo de Fitoplancton (Nº cel/L)

2da Semana



Semana: 12 al 18 de julio de 2015

Fechas: 14 y 17 de julio de 2015

ZONAS	002 GUAYNUNA															004 ISLA TORTUGAS			009 SALINAS			010 NONURA								
ESTACION	01-A-GUA**			01-B-GUA**			01-C-GUA**			02-D-GUA**			02-E-GUA**			01-A-TOR			01-A-SAL**			01-A-NON*			01-B-NON*			01-C-NON*		
PROFUNDIDAD (m)	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	....	....	....	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15
TEMPERATURA (°C)	18.5	17.8	17.3	18.0	17.6	17.3	17.9	17.7	17.4	18.3	18.0	17.9	18.5	18.2	17.8	....	....	....	19.0	18.4	17.7	20.5	20.3	20.0	20.5	20.3	20.3	20.5	20.3	20.3
DIATOMEAS																														
Grupo <i>Pseudo-nitzschia delicatissima</i>	7520	11280	8880	10240	12080	5840	6240	6800	6480	1480	6880	8240	1760	4080	9120	S/M	S/M	S/M	6880	8800	1960	480	920	600	240	240	320	480	560	1840
Grupo <i>Pseudo-nitzschia seriata</i>	24960	10320	4560	8080	2960	1560	10320	5920	3400	14960	11680	8720	7040	4400	2560	S/M	S/M	S/M	19360	31760	9920	120	0	80	0	0	0	0	0	0
DINOFLAGELADOS																														
<i>Alexandrium minutum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Alexandrium monilatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Alexandrium ostenfeldii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Alexandrium peruvianum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Alexandrium</i> sp.	0	0	0	80	0	0	40	0	0	40	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Azadinium spinosum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cochlodinium polykrikoides</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Dinophysis acuminata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Dinophysis caudata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	80	0	0	0	0	0	0
<i>Dinophysis rotundata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Dinophysis tripos</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Gonyaulax spinifera</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Karenia</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Karlodinium</i> cf. <i>veneficum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Lingulodinium polyedrum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Prorocentrum lima</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Prorocentrum minimum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	40	40	0	400	80	80	400	160	200
<i>Protoceratium reticulatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Protoperidinium crassipes</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
FITOFLAGELADOS																														
<i>Heterosigma akashiwo</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0

S/M: Sin Monitoreo

Fuente: * Entidad de Apoyo CERPER S.A.

** Entidad de Apoyo ACUILAB S.A.



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Análisis Cuantitativo de Fitoplancton (Nº cel/L)

2da Semana



Semana: 12 al 18 de julio de 2015

Fechas: 13, 16 y 18 de julio de 2015

ZONAS	017 CULEBRAS			011 BAHIA SAMANCO															012 BAHIA DE SECHURA			
ESTACION	01-A-CUL			01-B-SAM**						01-C-SAM*			02-A-SAM**			02-B-SAM**			12-B-SECH**			13-A-SECH
PROFUNDIDAD (m)	....	....	....	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	....
TEMPERATURA (°C)	....	....	....	20.3	19.8	18.5	20.4	20.3	19.0	20.4	19.9	18.3	18.9	17.2	16.3	16.2	16.1	16.2	20.1	19.9	19.8	....
DIATOMEAS																						
Grupo <i>Pseudo-nitzschia delicatissima</i>	S/M	S/M	S/M	560	1600	2720	280	640	960	0	160	80	320	1200	400	840	240	480	40	80	40	S/M
Grupo <i>Pseudo-nitzschia seriata</i>	S/M	S/M	S/M	80	160	1000	160	280	120	240	720	600	480	360	240	440	320	1520	0	0	0	S/M
DINOFLAGELADOS																						
<i>Alexandrium minutum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Alexandrium monilatum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Alexandrium ostenfeldii</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Alexandrium peruvianum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Alexandrium sp.</i>	S/M	S/M	S/M	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Azadinium spinosum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Cochlodinium polykrikoides</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Dinophysis acuminata</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Dinophysis caudata</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Dinophysis rotundata</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Dinophysis tripos</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Gonyaulax spinifera</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Karenia sp.</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Karlodinium cf. veneficum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Lingulodinium polyedrum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Prorocentrum lima</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Prorocentrum minimum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Protoceratium reticulatum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Protoperdinium crassipes</i>	S/M	S/M	S/M	0	0	0	0	0	0	40	40	0	0	80	0	0	0	40	0	0	0	S/M
FITOFAGELADOS																						
<i>Heterosigma akashiwo</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M

S/M: Sin Monitoreo

Fuente: * Entidad de Apoyo CERPER S.A.

** Entidad de Apoyo ACUILAB S.A.



ORGANISMO NACIONAL DE SANIDAD PESQUERA

SUB DIRECCIÓN DE SUPERVISIÓN ACUÍCOLA

Concesiones de Cultivo de *Argopecten purpuratus* "concha de abanico"

Monitoreo de Fitoplancton Potencialmente Tóxico

Departamentos de Piura, La Libertad y Ancash / Zonas: 002 Guaynuma, 004 Isla Tortugas, 009 Salinas, 010 Nonura, 017 Culebras, 011 Bahía Samanco, 012 Bahía Sechura

Análisis Cuantitativo de Fitoplancton (Nº cel/L)

3ra Semana



Semana: 19 al 25 de julio de 2015

Fechas: 21, 23 y 24 de julio de 2015

ZONAS	002 GUAYNUNA															004 I. TORTUGAS			009 SALINAS			010 NONURA								
ESTACION	01-A-GUA**			01-B-GUA**			01-C-GUA**			02-D-GUA**			02-E-GUA**			01-A-TOR			01-A-SAL**			01-A-NON*			01-B-NON*			01-C-NON*		
PROFUNDIDAD (m)	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	....	....	....	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15
TEMPERATURA (°C)	18.4	17.6	17.0	18.3	17.5	17.2	18.2	17.3	17.2	18.6	18.4	17.9	18.9	18.9	18.8	....	....	....	18.7	17.8	17.1	20.4	20.2	20.6	20.5	20.1	19.8	20.3	20.2	20.0
DIATOMEAS																														
Grupo <i>Pseudo-nitzschia delicatissima</i>	10560	8320	4320	9280	8560	5760	12240	10960	5600	15200	12960	6320	9120	9520	7440	S/M	S/M	S/M	8160	23040	12080	1360	2280	1600	2720	1560	2000	2440	3360	2880
Grupo <i>Pseudo-nitzschia seriata</i>	4480	1800	320	2240	560	1400	2120	2080	1320	5120	7600	1840	4320	3680	1840	S/M	S/M	S/M	15200	17600	5680	0	0	0	0	0	0	0	0	0
DINOFLAGELADOS																														
<i>Alexandrium minutum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Alexandrium monilatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Alexandrium ostenfeldii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Alexandrium peruvianum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Alexandrium</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Azadinium spinosum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cochlodinium polykrikoides</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Dinophysis acuminata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Dinophysis caudata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Dinophysis rotundata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Dinophysis tripos</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Gonyaulax spinifera</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Karenia</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Karlodinium</i> cf. <i>veneficum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Lingulodinium polyedrum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Prorocentrum lima</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Prorocentrum minimum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	40	160	240	120	80	120	40	0	200
<i>Protoceratium reticulatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Protoperidinium crassipes</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0
FITOFLAGELADOS																														
<i>Heterosigma akashiwo</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0

S/M: Sin Monitoreo

Fuente: * Entidad de Apoyo CERPER S.A.

** Entidad de Apoyo ACUILAB S.A.



ORGANISMO NACIONAL DE SANIDAD PESQUERA

SUB DIRECCIÓN DE SUPERVISIÓN ACUÍCOLA

Concesiones de Cultivo de *Argopecten purpuratus* "concha de abanico"

Monitoreo de Fitoplancton Potencialmente Tóxico

Departamentos de Piura, La Libertad y Ancash / Zonas: 002 Guaynuma, 004 Isla Tortugas, 009 Salinas, 010 Nonura, 017 Culebras, 011 Bahía Samanco, 012 Bahía Sechura

Análisis Cuantitativo de Fitoplancton (Nº cel/L)

3ra Semana



Semana: 19 al 25 de julio de 2015

Fechas: 20, 24 y 25 de julio de 2015

ZONAS	017 CULEBRAS			011 BAHIA SAMANCO															012 BAHIA DE SECHURA			
ESTACION	01-A-CUL			01-B-SAM**						01-C-SAM*			02-A-SAM**			02-B-SAM**			12-B-SECH**			13-A-SECH
PROFUNDIDAD (m)	....	....	....	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	....
TEMPERATURA (°C)	....	....	....	19.1	17.7	16.1	19.0	16.9	16.1	20.0	19.2	18.0	19.9	19.4	17.4	18.8	18.0	17.4	20.8	20.8	19.9	....
DIATOMEAS																						
Grupo <i>Pseudo-nitzschia delicatissima</i>	S/M	S/M	S/M	0	80	160	0	0	680	0	240	520	0	320	880	160	200	240	3320	1200	480	S/M
Grupo <i>Pseudo-nitzschia seriata</i>	S/M	S/M	S/M	80	80	400	320	320	440	400	720	560	160	200	0	80	80	80	80	120	240	S/M
DINOFLAGELADOS																						
<i>Alexandrium minutum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Alexandrium monilatum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Alexandrium ostenfeldii</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Alexandrium peruvianum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Alexandrium</i> sp.	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Azadinium spinosum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Cochlodinium polykrikoides</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Dinophysis acuminata</i>	S/M	S/M	S/M	0	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Dinophysis caudata</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Dinophysis rotundata</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Dinophysis tripos</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Gonyaulax spinifera</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Karenia</i> sp.	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Karlodinium</i> cf. <i>veneficum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Lingulodinium polyedrum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Prorocentrum lima</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Prorocentrum minimum</i>	S/M	S/M	S/M	0	0	0	80	0	0	0	0	0	160	0	0	0	0	0	0	0	0	S/M
<i>Protoceratium reticulatum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Protoperdinium crassipes</i>	S/M	S/M	S/M	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	0	0	0	S/M
FITOFLAGELADOS																						
<i>Heterosigma akashiwo</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M

S/M: Sin Monitoreo

Fuente: * Entidad de Apoyo CERPER S.A.

** Entidad de Apoyo ACUILAB S.A.



ORGANISMO NACIONAL DE SANIDAD PESQUERA

SUB DIRECCIÓN DE SUPERVISIÓN ACUÍCOLA

Concesiones de Cultivo de *Argopecten purpuratus* "concha de abanico"

Monitoreo de Fitoplancton Potencialmente Tóxico

Departamentos de Piura, La Libertad y Ancash / Zonas: 002 Guaynuma, 004 Isla Tortugas, 009 Salinas, 010 Nonura, 017 Culebras, 011 Bahía Samanco, 012 Bahía Secura

Análisis Cuantitativo de Fitoplancton (Nº cel/L)

4ta Semana



Semana: 26 de julio al 01 de agosto de 2015

Fechas: 30 y 31 de julio de 2015

ZONAS	002 GUAYNUNA															004 ISLA TORTUGAS	009 SALINAS			010 NONURA								
ESTACION	01-A-GUA**			01-B-GUA**			01-C-GUA**			02-D-GUA**			02-E-GUA**			01-A-TOR	01-A-SAL**			01-A-NON*			01-B-NON*			01-C-NON*		
PROFUNDIDAD (m)	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	....	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15
TEMPERATURA (°C)	19.5	19.1	18.9	19.7	19.3	19.0	19.6	19.3	18.8	19.0	18.6	18.4	19.1	18.8	18.6	....	19.5	19.4	18.7	19.3	19.2	19.1	20.2	19.0	19.0	20.3	19.5	19.5
DIATOMEAS																												
Grupo <i>Pseudo-nitzschia delicatissima</i>	1080	760	680	400	640	200	0	160	200	800	920	1000	480	240	160	S/M	480	80	160	800	400	720	3680	6760	2160	2400	3320	1640
Grupo <i>Pseudo-nitzschia seriata</i>	560	480	160	80	0	0	80	80	0	1560	1040	520	80	960	1840	S/M	600	80	1120	0	0	0	80	0	0	0	320	0
DINOFLAGELADOS																												
<i>Alexandrium minutum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Alexandrium monilatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Alexandrium ostenfeldii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Alexandrium peruvianum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Alexandrium</i> sp.	40	0	0	0	0	0	0	0	0	0	0	0	40	0	0	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Azadinium spinosum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cochlodinium polykrikoides</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Dinophysis acuminata</i>	0	0	0	40	0	0	0	0	0	0	0	0	0	0	0	S/M	0	0	0	0	0	0	0	0	0	0	80	0
<i>Dinophysis caudata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Dinophysis rotundata</i>	0	0	0	0	0	0	0	40	0	0	0	0	0	0	0	S/M	0	0	0	0	0	0	0	0	0	0	80	0
<i>Dinophysis tripos</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Gonyaulax spinifera</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Karenia</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Karlodinium</i> cf. <i>veneficum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Lingulodinium polyedrum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Prorocentrum lima</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Prorocentrum minimum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	0	0	0	0	0	0	0	80	0	0	40	40
<i>Protoceratium reticulatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	0	0	0	0	0	0	0	0	0	0	0	0
<i>Protoperdinium crassipes</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	0	0	0	0	0	0	0	0	0	0	0	0
FITOFAGELADOS																												
<i>Heterosigma akashiwo</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M	0	0	0	0	0	0	0	0	0	0	0	0

S/M: Sin Monitoreo

Fuente: * Entidad de Apoyo CERPER S.A.

** Entidad de Apoyo ACUILAB S.A.



ORGANISMO NACIONAL DE SANIDAD PESQUERA

SUB DIRECCIÓN DE SUPERVISIÓN ACUÍCOLA

Concesiones de Cultivo de *Argopecten purpuratus* "concha de abanico"

Monitoreo de Fitoplancton Potencialmente Tóxico

Departamentos de Piura, La Libertad y Ancash / Zonas: 002 Guaynuma, 004 Isla Tortugas, 009 Salinas, 010 Nonura, 017 Culebras, 011 Bahía Samanco, 012 Bahía Sechura

Análisis Cuantitativo de Fitoplancton (Nº cel/L)

4ta Semana



Semana: 26 de julio al 01 de agosto de 2015

Fechas: 30 y 31 de julio y 01 de agosto de 2015

ZONAS	017 CULEBRAS			011 BAHIA SAMANCO												012 BAHIA DE SECHURA			
ESTACION	01-A-CUL			01-B-SAM**			01-C-SAM*			02-A-SAM**			02-B-SAM**			12-B-SECH**			13-A-SECH
PROFUNDIDAD (m)	....	....	....	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	0-5	5-10	10-15	....
TEMPERATURA (°C)	....	....	....	20.6	19.0	18.7	20.4	19.9	18.2	19.5	19.0	19.5	19.8	19.0	18.7	18.3	18.0	17.3	....
DIATOMEAS																			
Grupo <i>Pseudo-nitzschia delicatissima</i>	S/M	S/M	S/M	0	80	640	0	160	80	160	80	200	0	440	0	78480	64800	44800	S/M
Grupo <i>Pseudo-nitzschia seriata</i>	S/M	S/M	S/M	4960	4080	960	6240	2880	6800	2680	360	360	5440	1600	1040	6160	4080	920	S/M
DINOFLAGELADOS																			
<i>Alexandrium minutum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Alexandrium monilatum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Alexandrium ostenfeldii</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Alexandrium peruvianum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Alexandrium</i> sp.	S/M	S/M	S/M	0	0	0	0	0	0	40	0	0	0	40	0	40	40	0	S/M
<i>Azadinium spinosum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Cochlodinium polykrikoides</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Dinophysis acuminata</i>	S/M	S/M	S/M	0	0	0	40	0	40	0	40	0	0	0	0	0	0	0	S/M
<i>Dinophysis caudata</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Dinophysis rotundata</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Dinophysis tripos</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Gonyaulax spinifera</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Karenia</i> sp.	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Karlodinium</i> cf. <i>veneficum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Lingulodinium polyedrum</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Prorocentrum lima</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Prorocentrum minimum</i>	S/M	S/M	S/M	200	0	0	200	600	320	0	0	0	200	0	0	160	40	0	S/M
<i>Protoceratium reticulatum</i>	S/M	S/M	S/M	0	0	0	40	0	0	0	0	0	0	0	0	0	0	0	S/M
<i>Protoberidinium crassipes</i>	S/M	S/M	S/M	0	80	0	0	0	40	40	0	40	40	0	0	0	0	0	S/M
FITOFLAGELADOS																			
<i>Heterosigma akashiwo</i>	S/M	S/M	S/M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S/M

S/M: Sin Monitoreo

Fuente: * Entidad de Apoyo CERPER S.A.

** Entidad de Apoyo ACUILAB S.A.