Date: 7/06/2018 3:07:42 PM

From: "Exhibited Animals Enquiry"

To: "SERAFIN Kate"

Subject: FW: new animal exhibit Sea Jellies

Attachment: image001.jpg;image001.png;image002.png;

fyi



Rosie Savoca

Senior Policy Officer, Exhibited Animals, Animal Biosecurity and Welfare

Biosecurity Queensland

Department of Agriculture and Fisheries

T 07 3087 8028 M s.73 Irrelev F 07 3087 8328

 $\textbf{E} \, \underline{ rosie.savoca@daf.qld.gov.au} \quad \textbf{W} \, \underline{ www.daf.qld.gov.au}$

41 George Street, Brisbane Qld 4000

GPO Box 46. Brisbane Old 4001

 $\textbf{Exhibited Animal Applications:} \, \underline{exhibited animal applications @ daf. qld. gov. au }$

Exhibited Animal Enquires: exhibitedanimalenquiry@daf.qld.gov.au
Website Link: http://www.business.qld.gov.au/industry/agriculture/exhibiting-animals-queensland

From: s.73 Irrelevant i mailto: s.73 Irrelevant i @vrtp.com.au]

Sent: Thursday, 7 June 2018 7:29 AM

To: Exhibited Animals Enquiry < ExhibAnimalEnq@daf.qld.gov.au>

Subject: Re: new animal exhibit Sea Jellies

Thanks Kate, I appreciate the prompt reply.

I have met with Danielle Stewart recently and there are no requirements from a Fisheries perspective.

Cheers

s.73 Irrelev

Sent from my iPhone

On 7 Jun 2018, at 7:02 am, Exhibited Animals Enquiry < ExhibAnimalEnq@daf.qld.gov.au wrote:

Good morning

Thank you for the species list.

I have checked the Nature Conservation Act 1992 and as suspected none of these species are listed so you will not require anything under the Exhibited Animals Act 2015.

I will leave it to you to ensure that you are meeting any Fisheries requirements for the species.

Regards

Kate

From: s.73 Irrelevant | < s.73 Irrelevant @vrtp.com.au>

Sent: Wednesday, 6 June 2018 5:44 PM

To: SERAFIN Kate

Subject: RE: new animal exhibit Sea Jellies

Thanks Kate

Sorry, I got side tracked.

The main species we will be housing are the following:

Blue Blubbers (Catostylus sp.)

Upside down jelly (Casseopia species)

Moon jellies (Aurelia aurita)

Sea nettles (Chrysaora kinthii)

A few species of Comb jellies or Ctenophores such as Pleurobrachia sp. and Mnemiopsis

Purple striped jelly (*Pelagia* sp.)

Fire jelly (Morbakka fenneri)

Irukandji (Carukia barnesi)

Lions mane (Cyanea sp.)

2 species of imported jellies:

Chrysaora fuscescens and Chrysaora quinquecirrha)

There could be a couple of others that might turn up locally in our waterways which we might display but these will be our main species.

Thanks

s.73 Irrelevant in Acting Head of Marine Sciences/Curator of Fishes | T: +617 s.73 Irrele F: +617 5588 2280 | M: s.73 Irrelevant Sea World | Sea World Drive, Main Beach, QLD 4217 | www.myfun.com.au

From: SERAFIN Kate [mailto:Kate.Serafin@daf.qld.gov.au]

Sent: Wednesday, 6 June 2018 7:34 AM

To s.73 Irrelevant inf

Subject: FW: new animal exhibit Sea Jellies

Good morning s.73 Irrel

Please see below email previously forwarded.

From: Exhibited Animals Enquiry
Sent: Friday, 4 May 2018 7:13 AM
To: S.73 Irre vrtp.com.au'
Cc: Exhibited Animals Enquiry

Subject: RE: new animal exhibit Sea Jellies

Good morning s.73 Irre

Thanks for your email.

Could you provide a couple of scientific names of the species you will be displaying?

There are some invertebrates that are listed however I am sure that jellies are not listed under the *Nature Conservation Act 1992* (if they are they default to our Act) however I will check just in case if you provide some species names.

Regards

Kate

Regards

Exhibited Animals

Biosecurity Queensland

Department of Agriculture and Fisheries

T 13 25 23 **W** <u>www.daf.qld.gov.au</u>

Level 2, 41 George Street, Brisbane Qld 4001

 $\textbf{Exhibited Animals Enquiry:} \underline{exhibitedanimalenquiry@daf.qld.gov.au}$

Exhibited Animals Applications: exhibited animal applications@daf.qld.gov.au

Website Link: http://www.business.qld.gov.au/industry/agriculture/exhibiting-animals-queensland

From: s.73 Irrelevant | [mailto: s.73 Irrelevant i @vrtp.com.au]

Sent: Thursday, 3 May 2018 3:14 PM

To: SERAFIN Kate
Cc: s.73 Irrelevant inform
Subject: new animal exhibit

Hi Kate

As you may or may not know we are currently building a new exhibit here at Sea World to display sea jellies. As some both pretty new to our jobs we are not sure if we need to get our new sea jelly exhibit approved by your office?

We are currently still under construction but plan to open by July all going well with the breeding and collection of the sea jellies.

Please advise if we need to submit an application for approval of this new facility and if you or someone from your department needs to attend and give approval?

Thanks

s.73 Irreleva

22-210 File A Page 2 of 78

s.73 Irrelevant in Acting Head of Marine Sciences & Curator of Fishes | T: +61 7 s.73 Irrele F: +61 7 5588 2280 | M: s.73 Irrelevant in Sea World | Sea World Drive, Main Beach QLD 4217 | seaworld.com.au

<image001.jpg>

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Date: 6/06/2018 7:33:58 AM
From: "SERAFIN Kate"
To: s.73 Irrelevant inform

Subject: FW: new animal exhibit Sea Jellies

Attachment: image001.jpg;
Good morning s.73 Irrele

Please see below email previously forwarded.

From: Exhibited Animals Enquiry
Sent: Friday, 4 May 2018 7:13 AM
To: S.73 Irre vrtp.com.au'
Cc: Exhibited Animals Enquiry

Subject: RE: new animal exhibit Sea Jellies

Good morning s.73 Irrel

Thanks for your email.

Could you provide a couple of scientific names of the species you will be displaying?

There are some invertebrates that are listed however I am sure that jellies are not listed under the *Nature Conservation Act 1992* (if they are they default to our Act) however I will check just in case if you provide some species names.

Discho

Regards

Kate

Regards

Exhibited Animals

Biosecurity Queensland Department of Agriculture and Fisheries

T 13 25 23 W www.daf.qld.gov.au

Level 2, 41 George Street, Brisbane Qld 4001

Exhibited Animals Enquiry: exhibited animal enquiry@daf.qld.gov.au

 $\textbf{Exhibited Animals Applications:} \underline{exhibitedanimal applications@daf.qld.gov.au}$

Website Link: http://www.business.qld.gov.au/industry/agriculture/exhibiting-animals-queensland

From: s.73 Irrelevant i mailto: s.73 Irrelevant ir vrtp.com.au]

Sent: Thursday, 3 May 2018 3:14 PM

To: SERAFIN Kate
Cc s.73 Irrelevant inform
Subject: new animal exhibit

Hi Kate

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We are currently still under construction but plan to open by July all going well with the breeding and collection of the sea jellies.

Please advise if we need to submit an application for approval of this new facility and if you or someone from your department needs to attend and give approval?

Thanks

s.73 Irrelevant in

| Acting Head of Marine Sciences & Curator of Fishes | T: +61 7 | s.73 | Irrelevant |
| Sea World | Sea World Drive, Main Beach QLD 4217 | seaworld.com.au





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Published on Physical School

Date: 6/09/2018 1:40:27 PM From: "SERAFIN Kate" To: "s.73 Irrelevant inf BCc: "RODGER Ian"

Subject: RE: Minimum Standards for Exhibiting Seals in QLD

Attachment : image001.jpg;
Good afternoon s.73 Irrelev

Qld would accept the proposed standards.

Regards

Kate

From: s.73 Irrelevant information @vrtp.com.au>
Sent: Thursday, 6 September 2018 12:03 PM

To: SERAFIN Kate

Subject: Minimum Standards for Exhibiting Seals in QLD

Dear Kate

Im hoping you can assist me were looking at upgrading some of our older Seal holding areas, can you please advise me if the Standards for Exhibiting Seals in New South Wales Exhibited Animals Protection Act 1986 are the latest and the ones which QLD have accepted. If not could you please direct me to the most recent standards that you are looking for.

I hope life is going well and hope to catch up soon.

Cheers

S.73 Irrelevan | Assistant General Manager / Director of Marine Sciences, Sea World | T: +61 7 S.73 Irrele | F: +61 7 5588 2280 | Village Roadshow Theme Parks | Sea World Drive, Main Beach, Qld 4217. seaworld.com.au



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Date: 4/05/2018 7:13:01 AM

Cc: "Exhibited Animals Enquiry"
Subject: RE: new animal exhibit Sea Jellies

Attachment: image001.jpg;
Good morning s.73 Irrele

Thanks for your email.

Could you provide a couple of scientific names of the species you will be displaying?

There are some invertebrates that are listed however I am sure that jellies are not listed under the *Nature Conservation Act 1992* (if they are they default to our Act) however I will check just in case if you provide some species names.

On another note, how are the rays doing?

Have there been any further deaths since moving them back into the enclosure and giving a vaccine?

Regards

Kate

Regards

Exhibited Animals

Biosecurity Queensland
Department of Agriculture and Fisheries

T 13 25 23 W www.daf.qld.gov.au

Level 2, 41 George Street, Brisbane Qld 4001

Exhibited Animals Enquiry: exhibitedanimalenquiry@daf.qld.gov.au

Exhibited Animals Applications: exhibitedanimalapplications@daf.qld.gov.au

Website Link: http://www.business.qld.gov.au/industry/agriculture/exhibiting-animals-queensland

From: s.73 Irrelevant i mailto s.73 Irrelevant i evrtp.com.au]

Sent: Thursday, 3 May 2018 3:14 PM

To: SERAFIN Kate
Cc: s.73 Irrelevant infor
Subject: new animal exhibit

Hi Kate

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We are currently still under construction but plan to open by July all going well with the breeding and collection of the sea jellies.

Please advise if we need to submit an application for approval of this new facility and if you or someone from your department needs to attend and give approval?

Thanks

S.73 Irrelevant in

Acting Head of Marine Sciences & Curator of Fishes | T: +61 7

Sea World | Sea World Drive, Main Beach QLD 4217 | seaworld.com.au





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And the state of t

Date: 1/06/2018 8:54:11 AM From: "SERAFIN Kate" To: s.73 Irrelevant informatio "SAVOCA Rosie" Cc: Subject : RE: Ray reef exhibit at Sea World Thank you s.73 Ir

When the exhibit is opened will public interaction occur?

Regards

Kate

-Original Message-From S 73 Irrelevant infr@vrtp.comau: Sent: Thursday, 31 May 2018 12:44 PM To: SERAFIN Kate Cc s. 73 Irrelevant inf

Hi Kate

We are starting to consider an opening date for our Ray Reef exhibit which has been closed to the public since the 12th March due to the Steptococcus outbreak in our stingrays.

The entire exhibit has been sterilised, all the substrate change for new substrate and we will have completed the second round of vaccinations by the end of tomorrow. We are still having the occasional mortality. We had none for a week then 3 this week. It is still showing up as Steptococcus agalactiae on pathology

We are discussing a possible date to reopen the exhibit. Is there any requirement from your end before we open the exhibit again?

s.73 l

Acting Head of Marine Sciences Sea World

Sent from my iPhone

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_mlyTPHHLEDSM

22-210 File A Page 9 of 78

Date: 20/06/2017 12:36:47 PM From: "SAVOCA Rosie" To: s.73 Irrelevant info

Cc: "SERAFIN Kate"

Subject: RE: Dolphin procedure

Attachment: image001.png;image002.png;

Hi s.73 Irre

Thank you for letting us know. Hope all goes well.

For future emails can you please ensure they are sent to inbox address exhibitedanimalenguiry@daf.gld.gov.au This is an inbox all staff have access to and will ensure your email is addressed if some staff are away or out of the office.

Thank you



Rosie Savoca Senior Policy Officer, Exhibited Animals, Animal Biosecurity and Welfare Biosecurity Queensland

Department of Agriculture and Fisheries

T 07 3087 8028 M s.73 Irrelev F 07 3087 8328 E rosie.savoca@daf.qld.gov.au W www.daf.qld.gov.au

41 George Street, Brisbane Qld 4000

GPO Box 46, Brisbane Qld 4001 $\textbf{Exhibited Animal Applications:} \, \underline{exhibitedanimal applications @ \, daf. qld. gov. auchine a language of the animal applications and a language of the$

 $\textbf{Exhibited Animal Enquires:} \, \underline{exhibitedanimalenquiry@daf.qld.gov.au} \\$

Website Link: http://www.business.qld.gov.au/industry/agriculture/exhibiting-animals

From: s.73 Irreleva[mailto s.73 Irrelevar@vrtp.com.au]

Sent: Tuesday, 20 June 2017 12:18 PM

To: SAVOCA Rosie <Rosie.Savoca@daf.qld.gov.au>

Subject: Dolphin procedure

Hi Rosie,

Just letting you know that we are taking a dolphin from Sea World to the Veterinary Specialist Services Centre in Carrara on Thursday morning for a CT scan. Should only be away from the park for a few hours and then will return.

s.73 Irrelevan

Veterinarian, Sea World

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Date: 7/06/2018 7:02:39 AM

From: "Exhibited Animals Enquiry"

To: "s.73 Irrelevant inf"

Subject: RE: new animal exhibit Sea Jellies

Attachment: image001.jpg;

Good morning s.73 Irr

Thank you for the species list.

I have checked the *Nature Conservation Act 1992* and as suspected none of these species are listed so you will not require anything under the *Exhibited Animals Act 2015*.

I will leave it to you to ensure that you are meeting any Fisheries requirements for the species.

Regards

Kate

From: s.73 Irrelevant information @vrtp.com.au>

Sent: Wednesday, 6 June 2018 5:44 PM

To: SERAFIN Kate

Subject: RE: new animal exhibit Sea Jellies

Thanks Kate

Sorry, I got side tracked.

The main species we will be housing are the following:

Blue Blubbers (*Catostylus* sp.)
Upside down jelly (*Casseopia* species)
Moon jellies (*Aurelia aurita*)
Sea nettles (*Chrysaora kinthii*)

A few species of Comb jellies or Ctenophores such as Pleurobrachia sp. and Mnemiopsis

Purple striped jelly (*Pelagia* sp.) Fire jelly (*Morbakka fenneri*) Irukandji (*Carukia barnesi*) Lions mane (*Cyanea* sp.)

2 species of imported jellies:

Chrysaora fuscescens and Chrysaora quinquecirrha)

There could be a couple of others that might turn up locally in our waterways which we might display but these will be our main species.

Thanks

s.73 Irrelevant i | Acting Head of Marine Sciences/Curator of Fishes | T: +61 7 s.73 Irrele
Sea World | Sea World Drive, Main Beach, QLD 4217 | www.myfun.com.au

From: SERAFIN Kate [mailto:Kate.Serafin@daf.qld.gov.au]

Sent: Wednesday, 6 June 2018 7:34 AM

To: s.73 Irrelevant

Subject: FW: new animal exhibit Sea Jellies

Good morning s.73 Irr

Please see below email previously forwarded.

From: Exhibited Animals Enquiry
Sent: Friday, 4 May 2018 7:13 AM
To: 5.73 Irr@vrtp.com.au'
Cc: Exhibited Animals Enquiry

Subject: RE: new animal exhibit Sea Jellies

Good morning s.73 Irr

Thanks for your email.

22-210 File A Page 11 of 78

Could you provide a couple of scientific names of the species you will be displaying?

There are some invertebrates that are listed however I am sure that jellies are not listed under the Nature Conservation Act 1992 (if they are they default to our Act) however I will check just in case if you provide some species names.

Regards

Kate

Regards

Exhibited Animals

Biosecurity Queensland Department of Agriculture and Fisheries

T 13 25 23 W www.daf.qld.gov.au

Level 2, 41 George Street, Brisbane Qld 4001

Exhibited Animals Enquiry: exhibited animal enquiry@daf.qld.gov.au $\textbf{Exhibited Animals Applications:} \, \underline{exhibitedanimal applications @daf.qld.gov.au} \\$

Website Link: http://www.business.qld.gov.au/industry/agriculture/exhibiting-animals-queensland

From: s.73 Irrelevant in [mailto: s.73 Irrelevant i@vrtp.com.au]

Sent: Thursday, 3 May 2018 3:14 PM

To: SERAFIN Kate Cc: s.73 Irrelevant info Subject: new animal exhibit

Hi Kate

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Thanks

s.73 Irrelevant in

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Sea World | Sea World Drive, Main Beach QLD 4217 | seaworld.com.au





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Published of Parl Act 2009

Date: 3/04/2018 3:14:05 PM
From: S.73 Irrelevant informa
To: "SERAFIN Kate"
Cc: S.73 Irrelevant informa
Subject: Ray Reef

Attachment: ISSUE PAPER RE RECENT DEATHS IN STINGRAYS AT SEA WORLD 2018.doc;Bowater_et_al-2017-

Journal_of_Fish_Diseases.pdf;image001.jpg;

Hi Kate

I am writing to inform you of a disease outbreak we have encountered in our Ray Reef exhibit here at Sea World over recent weeks.

Please see attached issues paper by our veterinarian s.73 Irreleve outlining the outbreak to date and our actions to try and halt the disease. I have also attached a copy of a paper published in 2017 following outbreaks of a similar nature in 2009 and 2010.

Please contact myself or s.73 Irreleval on s.73 Irreleval if you require additional information regarding this issue.

Kind regards,

s.73 Irrelevant info

Acting Head of Marine Sciences & Curator of Fishes | T: +61 7 s.73 Irrele F: +61 7 5588 2280 | M s.73 Irrelevant

Sea World | Sea World Drive, Main Beach QLD 4217 | <u>seaworld.com.au</u>





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ISSUE PAPER RE RECENT DEATHS IN RAYS AT SEA WORLD

Background

Over the last month there have been twenty-six (26) mortalities in the ray population at Sea World (see attached spreadsheet). All of these deaths have occurred in the one exhibit - Ray Reef. Multiple species have been affected but Estuary Rays have accounted for the majority of the mortalities (19/26 or 73%). Clinical signs have ranged from a lightening in colour, lethargy and inappetance to sudden death.

Present Position:

A bacterium known as *Streptococcus agalactiae* has been isolated from the majority of dead animals. This bacterium caused a similar outbreak in rays at Sea World in 2009 and 2010 (see attached paper). It is a fish specific strain and has not been known to cause illness in people. The bacterium is susceptible to a number of antibiotics but treatments implemented so far (oral amoxicillin and oxytetracycline baths) have been ineffective in halting the mortalities.

Comment:

At this stage it is unclear how the bacterium is infecting the rays. It may be entering their bodies through small wounds or through their gills or via the gastrointestinal tract via the food. The most likely route of entry is through small defects in the skin such as bite or scratch wounds.

Recommendation:

- Remove all rays from this exhibit and thoroughly disinfect the exhibit (this is occurring on the 3/4/18)
- Treat all remaining rays with oxytetracycline bath (3/4/18)
- Vaccinate all rays before reintroducing them to the exhibit
- Maintain strict biosecurity measures in an attempt to stop the spread of this disease to other pools or exhibits
- Maintain high personal hygiene standards amongst the divers/aquarists.

s.73 Irrelevant inform

Veterinarian, Sea World

Date: 4/04/2018 1:09:22 PM From: "SERAFIN Kate" To: |s.73 Irrelevant information

Subject: Seaworld outbreak of Streptococcus agalactiae in ray population - Ray Reef Exhibit Attachment: ISSUE PAPER RE RECENT DEATHS IN STINGRAYS AT SEA WORLD 2018.doc; Bowater et al-2017-Journal of Fish Diseases.pdf;Exhibited Animals Act 2015.pdf;image001.jpg;image002.png;image004.png;

Good afternoon s.73 Irrelevant in

s.73 Irrethanks for attaching the paper and for advising us of the issue.

Thank for your time on the phone this morning | s.73 | and for advising that you have contacted the relevant authorities WH&S/ Fisheries.

Unexplained or abnormally high mortality rate or morbidity of animals recorded on your Exhibition Licence is considered a serious incident under s80 of the Exhibited Animals Act 2015. Please ensure that in future and as per s81 of the Act, the park notifies Exhibited Animals as soon as it becomes aware of any of the listed issues under s80 of the Act. I have attached the Act for your reference.

Excluding the attached information I have noted that;

- There have been no wild caught intakes into the exhibit for a number of years.
- In recent years population control measures have been implemented to ensure breeding does not occur no transfers out.
- There has been no public interaction with the various species of ray.
- A vaccine will be created as required once testing is confirmed.
- All rays have been placed in quarantine tanks and are being treated and will continue to be treated.
- The exhibit has been emptied and is undergoing treatment.
- The exhibit water is filtered through other exhibits however no other spp. in separate exhibits are showing signs/symptoms of Streptococcus agalactiae.

As discussed could you please provide a general update mid next week regarding testing, mortality etc.

Many thanks

Kate



Government

Kate Serafin

Senior Policy Officer, Exhibited Animal Biosecurity Queensland Department of Agriculture and Fisheries

T 07 3087 8024 M s.73 Irreleva kate.serafin@daf.qld.gov.au W www.daf.qld.gov.au Level 2, 41 George Street, Brisbane Qld 4000

GPO Box 46, Brisbane Qld 4001 Exhibited Animals Enquiry: exhibitedanimalenquiry@daf.qld.gov.au

Exhibited Animals Applications: exhibited animal applications@daf.qld.gov.au

Website Link: http://www.business.qld.gov.au/industry/agriculture/exhibiting-animals-queensland

From: s.73 Irrelevant [mailto: s.73 Irrelevant @vrtp.com.au]

Sent: Tuesday, 3 April 2018 3:14 PM

To: SERAFIN Kate Cc: s.73 Irrelevant Subject: Ray Reef

Hi Kate

I am writing to inform you of a disease outbreak we have encountered in our Ray Reef exhibit here at Sea World over recent weeks.

Please see attached issues paper by our veterinarian s.73 Irreleva putlining the outbreak to date and our actions to try and halt the disease. I have also attached a copy of a paper published in 2017 following outbreaks of a similar nature in 2009 and 2010.

s.73 Irreleva Please contact myself or on s.73 Irrelevar f you require additional information regarding this issue.

Kind regards,

s.73 Irrelevant in

Acting Head of Marine Sciences & Curator of Fishes | T: +61 7 s.73 Irrele F: +61 7 5588 2280 | M: s.73 Irreleva

Sea World | Sea World Drive, Main Beach QLD 4217 | seaworld.com.au





More Info

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Published on Physical School

ISSUE PAPER RE RECENT DEATHS IN RAYS AT SEA WORLD

Background

Over the last month there have been twenty-six (26) mortalities in the ray population at Sea World (see attached spreadsheet). All of these deaths have occurred in the one exhibit - Ray Reef. Multiple species have been affected but Estuary Rays have accounted for the majority of the mortalities (19/26 or 73%). Clinical signs have ranged from a lightening in colour, lethargy and inappetance to sudden death.

Present Position:

A bacterium known as *Streptococcus agalactiae* has been isolated from the majority of dead animals. This bacterium caused a similar outbreak in rays at Sea World in 2009 and 2010 (see attached paper). It is a fish specific strain and has not been known to cause illness in people. The bacterium is susceptible to a number of antibiotics but treatments implemented so far (oral amoxicillin and oxytetracycline baths) have been ineffective in halting the mortalities.

Comment:

At this stage it is unclear how the bacterium is infecting the rays. It may be entering their bodies through small wounds or through their gills or via the gastrointestinal tract via the food. The most likely route of entry is through small defects in the skin such as bite or scratch wounds.

Recommendation:

- Remove all rays from this exhibit and thoroughly disinfect the exhibit (this is occurring on the 3/4/18)
- Treat all remaining rays with oxytetracycline bath (3/4/18)
- Vaccinate all rays before reintroducing them to the exhibit
- Maintain strict biosecurity measures in an attempt to stop the spread of this disease to other pools or exhibits
- Maintain high personal hygiene standards amongst the divers/aquarists.

s.73 Irrelevant inform

Veterinarian, Sea World

Date: 3/04/2018 6:44:16 PM From: "BUNCE Ashley" To: "SERAFIN Kate" Cc: "SAVOCA Rosie" Subject: Re: Ray Reef Attachment: image001.jpg;

Thanks Kate.

I will give you a call tomorrow.

Should Sea World also notify WHSQ?

Cheers, Ash

On 3 Apr 2018, at 4:48 pm, SERAFIN Kate < Kate.Serafin@daf.qld.gov.au> wrote:

FYI • I have not contacted them yet.

I will also ensure they have contacted fisheries.

From: s.73 Irrelevant i mailto: s.73 Irrelevant @vrtp.com.au]

Sent: Tuesday, 3 April 2018 3:14 PM

To: SERAFIN Kate Cc: s.73 Irrelevant i Subject: Ray Reef

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Kind regards,

s.73 Irrelevant info

Acting Head of Marine Sciences & Curator of Fishes | T: +61 7 s.73 Irrele F: +61 7 5588 2280 | M: s.73 Irrelevant in

Sea World | Sea World Drive, Main Beach QLD 4217 | seaworld.com.au





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Date: 4/04/2018 12:55:06 PM From: "BUNCE Ashley" To: "SERAFIN Kate"

Cc: "RODGER Ian", "SAVOCA Rosie"

Subject: FW: Seaworld Ray spp. outbreak - Streptococcus agalactiae Ray Reef Exhibit

Attachment: image002.png;image005.jpg;image001.png;

FYI and advice

From: CROOK Allison

Sent: Wednesday, 4 April 2018 12:54 PM

To: BUNCE Ashley < Ashley. Bunce@daf.qld.gov.au>

Subject: RE: Seaworld Ray spp. outbreak - Streptococcus agalactiae Ray Reef Exhibit

Thanks for the update – can you confirm no public contact with the rays?

From: BUNCE Ashley

Sent: Wednesday, 4 April 2018 10:26 AM

To: CROOK Allison < Allison.Crook@daf.qld.gov.au>

Subject: FW: Seaworld Ray spp. outbreak - Streptococcus agalactiae Ray Reef Exhibit

FYI

From: SERAFIN Kate

Sent: Wednesday, 4 April 2018 10:24 AM

To: BUNCE Ashley < Ashley.Bunce@daf.qld.gov.au >; RODGER Ian < lan.Rodger@daf.qld.gov.au >

Cc: SAVOCA Rosie < Rosie. Savoca@daf.qld.gov.au >

Subject: Seaworld Ray spp. outbreak - Streptococcus agalactiae Ray Reef Exhibit

Seaworld Vet s.73 Irrelevant in

Good morning Ash/lan

Just a quick update on the S. agalactiae ray outbreak at Seaworld after talking to s.73 Irreleva

- As per the email notification there has been an outbreak of Streptococcus agalactiae in the Seaworld Ray Reef exhibit with 26 mortalities over various ray spp. Predominantly Estuary rays however there were also other spp. held.
- Noting that there are very small distinctions between isolates during testing of wild caught populations I have asked s.73 l if molecular characterization had been carried out or is it an assumption that the isolates are the same lineage sequence as the last outbreak?
- s.73 I has advised that they are assuming at this point in time but have carried out testing and are waiting on results.
- I have asked him if a targeted vaccine will be created if the results confirm a different serotype to the last outbreak the answer was yes and they shall continue annual vaccinations.
- When asked what the last vaccination program involved s.73 lrr dvised it was a 2 x 4 week apart vaccination followed by annual vaccination if required (signs, symptoms).
- s.73 Irconfirmed that the tank does filter the same water through Shark Bay water however they have large filtration systems and are running UV over the filtration lines s.73 has advised that other species were not affected last time either (prevalent in the rays rather than sharks etc.)
- All ray spp. have been taken out of the tank and placed in quarantine pools. The tank has been stripped down and is currently being treated.
- I questioned s.73 about ray transfers and he has advised that they have not had an intake (from the wild) since the last outbreak and have ceased breeding the rays to ensure population control.
- s.73 Ir also confirmed that they are not releasing any individuals into the wild given they have taken steps to ensure breeding does not occur.
- s.73 Irr dvised that the park has contacted relevant people WH&S/Fisheries and even though the risk is low they are taking measures to ensure staff are protected.

I have asked s.73 If o keep us in the loop and advise once tests are confirmed.

Regards

Kate



Senior Policy Officer, Exhibited Animals Biosecurity Queensland Department of Agriculture and Fisheries

T 07 3087 8024 M s.73 Irrele E kate.serafin@daf.qld.gov.au W www.daf.qld.gov.au Level 2, 41 George Street, Brisbane Qld 4000

GPO Box 46, Brisbane Qld 4001

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Website Link: http://www.business.qld.gov.au/industry/agriculture/exhibiting-animals-queensland

From: BUNCE Ashley

Sent: Tuesday, 3 April 2018 6:44 PM

To: SERAFIN Kate Cc: SAVOCA Rosie Subject: Re: Ray Reef

Thanks Kate.

I will give you a call tomorrow.

Should Sea World also notify WHSQ?

Cheers, Ash

On 3 Apr 2018, at 4:48 pm, SERAFIN Kate < Kate.Serafin@daf.qld.gov.au wrote:

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Please contact myself or s.73 Irrelevant you require additional information regarding this issue.

Kind regards,

s.73 Irrelevant i

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<ISSUE PAPER RE RECENT DEATHS IN STINGRAYS AT SEA WORLD 2018.doc>

<Bowater et al-2017-Journal of Fish Diseases.pdf>

22-210 File A Page 22 of 78

Date: 5/04/2018 4:45:37 PM From: s.73 Irrelevant info

To: "SERAFIN Kate", s.73 Irrelevant inform

Subject: RE: Seaworld outbreak of Streptococcus agalactiae in ray population - Ray Reef Exhibit

Attachment: image002.png;image003.png;image005.jpg;

Hi Kate,

Just to clarify a few points:

We have not notified fisheries as we were not aware of any necessity to do that.

The exhibit in which the rays were kept is a public contact exhibit where people feed the animals. This was closed to the public on 12th March 2018, as soon as we had diagnosed the problem.

s.73 Irreles s at work next week Mon/Tues if you wanted to have a phone hook up either of those days to assess where we are at. Otherwise I be around all week.

s.73 Irreleva

From: SERAFIN Kate [mailto:Kate.Serafin@daf.qld.gov.au]

Sent: Wednesday, 4 April 2018 1:09 PM

To: s.73 Irrelevant information

Subject: Seaworld outbreak of Streptococcus agalactiae in ray population - Ray Reef Exhibit

Good afternoon s.73 Irrelevant in

s.73 Irrethanks for attaching the paper and for advising us of the issue.

Thank for your time on the phone this morning s.73 land for advising that you have contacted the relevant authorities WH&S/ Fisheries.

Unexplained or abnormally high mortality rate or morbidity of animals recorded on your Exhibition Licence is considered a serious incident under s80 of the Exhibited Animals Act 2015. Please ensure that in future and as per s81 of the Act, the park notifies Exhibited Animals as soon as it becomes aware of any of the listed issues under s80 of the Act. I have attached the Act for your reference.

Excluding the attached information I have noted that;

- There have been no wild caught intakes into the exhibit for a number of years.
- In recent years population control measures have been implemented to ensure breeding does not occur � no transfers out.
- There has been no public interaction with the various species of ray.
- A vaccine will be created as required once testing is confirmed.
- All rays have been placed in quarantine tanks and are being treated and will continue to be treated.
- The exhibit has been emptied and is undergoing treatment.
- The exhibit water is filtered through other exhibits however no other spp. in separate exhibits are showing signs/symptoms of Streptococcus agalactiae.

As discussed could you please provide a general update mid next week regarding testing, mortality etc.

Many thanks

Kate



Government

Kate Serafin

Senior Policy Officer, Exhibited Animals Biosecurity Queensland Department of Agriculture and Fisheries

T 07 3087 8024 M S.73 Irrelev E kate.serafin@daf.qld.gov.au W www.daf.qld.gov.au Level 2, 41 George Street, Brisbane Qld 4000

GPO Box 46, Brisbane Qld 4001

Exhibited Animals Enquiry: exhibitedanimalenquiry@daf.qld.gov.au

Exhibited Animals Applications: exhibitedanimalapplications@daf.qld.gov.au

Website Link: http://www.business.qld.gov.au/industry/agriculture/exhibiting-animals-queensland

From s.73 Irrelevant in mailto s.73 Irrelevant in vrtp.com.au]

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Date: 6/04/2018 11:59:41 AM From: "SERAFIN Kate"

To: "RODGER Ian", "SAVOCA Rosie"

Subject: Fwd: Seaworld outbreak of Streptococcus agalactiae in ray population - Ray Reef Exhibit

Attachment: image003.png;image005.jpg;

Kate Serafin

Senior Policy Officer, Exhibited Animals Unit, Biosecurity Queensland Corporate

DAF

T: <u>07 3087 8024</u> M: s.73 Irrelevant
F: <u>07 3087 8328</u> W: www.daf.qld.gov.au

E: kate.serafin@daf.qld.gov.au

E:exhibitedanimalenquiry@daf.qld.gov.au

Sent from my iPhone

Begin forwarded message:

From: s.73 Irrelevant information avrtp.com.au>

Date: 5 April 2018 at 4:45:37 pm AEST

To: SERAFIN Kate < Kate. Serafin@daf.qld.gov.au>, s.73 Irrelevant information @vrtp.com.au> Subject: RE: Seaworld outbreak of Streptococcus agalactiae in ray population - Ray Reef Exhibit

Hi Kate,

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s.73 Irrele

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To: s.73 Irrelevant information

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Many thanks

Kate

Kate Serafin
Senior Policy Officer, Exhibited Animals
Biosecurity Queensland
Department of Agriculture and Fisheries

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From: s.73 Irrelevant in mailto: s.73 Irrelevant i @vrtp.com.au]

Sent: Tuesday, 3 April 2018 3:14 PM

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Cc: s.73 Irreleval

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Kind regards,

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Date: 10/04/2018 9:14:15 AM From: "SERAFIN Kate" To: "STEWART Danielle" Cc: "SAVOCA Rosie"

Subject: RE: Seaworld Ray Reef exhibit - disease outbreak

Attachment: image001.png;image002.png;

Hi Dani

Yes, we are just asking to be kept in the loop given that they have ceased taking in from the wild and releasing into the wild.

We also look at it from a potential health hazard and notifiable disease issue however they ceased public interaction and it is not a notifiable so it comes back to animal welfare and ensuring their management practices are ok.

They are waiting on results before developing a serotype specific vaccine.

Regards

Kate

From: STEWART Danielle

Sent: Monday, 9 April 2018 7:37 AM

To: SERAFIN Kate

Subject: RE: Seaworld Ray Reef exhibit - disease outbreak

Hey Kate,

Keep us across it if you can. I am down at Seaworld in a couple of weeks to talk to them about their permits etc. Are you guys just asking them to inform you as the situation progresses?

Dani

From: SERAFIN Kate

Sent: Friday, 6 April 2018 6:45 AM

To: STEWART Danielle < <u>Danielle.Stewart@daf.qld.gov.au</u>>
Subject: Seaworld Ray Reef exhibit - disease outbreak

Morning Danielle

Don't know if you guys need to know but Seaworld has advised that one of their ray tanks has had an outbreak of Streptococcus agalactiae and there has been high mortality rates.

Let me know if this is something you guys handle and I will forward the rest of the information that we have received.

Regards

Kate



Kate Serafin

Senior Policy Officer, Exhibited Animals Biosecurity Queensland Department of Agriculture and Fisheries

T 07 3087 8024 M s.73 | Irrelev| E kate.serafin@daf.qld.gov.au W www.daf.qld.gov.au Level 2, 41 George Street, Brisbane Qld 4000

GPO Box 46, Brisbane Qld 4001

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Date: 12/04/2018 1:14:06 PM From: "SERAFIN Kate"

To: "BUNCE Ashley", "RODGER Ian"

Cc: "SAVOCA Rosie"

Subject : Sea World Ray Exhibit Update - Streptococcus agalactiae outbreak

Attachment: image001.png;image003.png;

Hi All

I have contacted s.73 Irrelev (Sea World vet) to see how things are going with the rays currently in quarantine.

s.73 Irre as advised the following;

- They have only lost one animal in the last week however s.73 believes that the animal died from other causes older animal, waiting on results.
- They now have a vaccine.
- They will vaccinate 3 animals initially wait around 5 days to ensure there are no adverse effects before obtaining more vaccine for the remaining animals.
- Completion of treatment for the ray exhibit will be finalised end of next week.
- Remaining animals will be vaccinated whilst being moved to the new exhibit.
- The only positive cultures have been directly from the animals and not from the environment within the exhibit itself.
- \$\s.73 \did not have the numbers at hand but advised there are an estimated 25 to 30 animals remaining form the initial 50 animals.
- The park does not intend to breed the numbers up again in the near future and will continue to closely monitor the animals.
- I have requested s.73 I contact us if/when they decide to start public interaction again s.73 I dvised that this will not occur until they are satisfied that the animals are no longer stressed or at risk of developing illness.

I will contact s.73 lr or an update in two weeks.

Regards

Kate



Kate Serafin

Senior Policy Officer, Exhibited Animals Biosecurity Queensland Department of Agriculture and Fisheries

T 07 3087 8024 M S.73 Irreleve kate.serafin@daf.qld.gov.au W www.daf.qld.gov.au Level 2, 41 George Street, Brisbane Qld 4000

GPO Box 46, Brisbane Qld 4001

Jolishe

Exhibited Animals Enquiry: exhibitedanimalenquiry@daf.qld.gov.au

 $\textbf{Exhibited Animals Applications:} \underline{exhibitedanimal applications@daf.qld.gov.au}$

Website Link: http://www.business.gld.gov.au/industry/agriculture/exhibiting-animals-queensland

Date : 31/05/2018 12:43:38 PM From: s.73 Irreleva To: "SERAFIN Kate"

Cc: s.73 Irrelevant information

We are starting to consider an opening date for our Ray Reef exhibit which has been closed to the public since the 12th March due to the Steptococcus outbreak in our stingrays.

The entire exhibit has been sterilised, all the substrate change for new substrate and we will have completed the second round of vaccinations by the end of tomorrow. We are still having the occasional mortality. We had none for a week then 3 this week. It is still showing up as Steptococcus agalactiae on pathology.

We are discussing a possible date to reopen the exhibit. Is there any requirement from your end before we open the exhibit again?

s.73 I

Acting Head of Marine Sciences Sea World

Sent from my iPhone

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22-210 File A Page 30 of 78 Date: 1/06/2018 5:56:36 PM From: "RODGER Ian To: "SERAFIN Kate"

Subject: Re: Ray reef exhibit at Sea World

Thanks Kate

I think we should write back as intended with our recommendation. Do you want me to draft something up or do you feel it can wait until Tuesday?

On 1 Jun 2018, at 2:10 pm, SERAFIN Kate < Kate.Serafin@daf.qld.gov.au> wrote:

Kate Serafin

Senior Policy Officer, Exhibited Animals Unit, Biosecurity Queensland Corporate

DAF

T: <u>07 3087 8024</u> M: <u>s 73 Irrele</u>v

F: 07 3087 8328 W: www.daf.qld.gov.au

E: kate.serafin@daf.qld.gov.au

E:exhibitedanimalenquiry@daf.qld.gov.au

Sent from my iPhone

Begin forwarded message:

From: S.73 Irrelevant inform@vrtp.comau>
Date: 1 June 2018 at 1:27:31 pm AEST

To: SERAFIN Kate <<u>Kate.Scrafin@daf.qkl.gov.au</u>>
Cc: S.73 Irrelevant inf@vrtp.comau>
S.73 Irrelevant inform@vrtp.comau>, SAVOCA Rosie <<u>Rosie.Savoca@daf.qkl.gov.au</u>>
Subject: RE: Ray reef exhibit at Sea World

We are not intending to have the public feeding for the next couple of weeks but people would still be able to put their hands into the tank.

ADAK Discion s.73 Irrele Curator of Fishes | T:+61 7 S.73 Irr F:+61 7 5588 2280 | M: S.73 Irrele Sea World | Sea World Drive, Main Beach, QLD 4217 | www.myfun.com.au

--Original Message---

From: SERAFIN Kate [mailto:Kate.Serafin@daf.qld.gov.au]

Sent: Friday, 1 June 2018 8:54 AM

To: s.73 Irrelevant info

Subject: RE: Ray reef exhibit at Sea World

Thank you s.73

When the exhibit is opened will public interaction occur?

Regards

Kate

Original Message----

From S.73 Irrelevant inform Sent: Thursday, 31 May 2018 12:44 PM

To: SERAFIN Kate

Cc: s.73 Irrelevant infor Subject: Ray reef exhibit at Sea World

We are starting to consider an opening date for our Ray Reef exhibit which has been closed to the public since the 12th March due to the Steptococcus outbreak in our stingrays.

The entire exhibit has been sterilised, all the substrate change for new substrate and we will have completed the second round of vaccinations by the end of tomorrow. We are still having the occasional mortality. We had none for a week then 3 this week. It is still showing up as Steptococcus agalactiae on pathology.

We are discussing a possible date to reopen the exhibit. Is there any requirement from your end before we open the exhibit again?

Thanks

s.73 Ir

Acting Head of Marine Sciences

Sea World

Sent from my iPhone

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Date: 4/06/2018 9:13:18 AM From: S.73 Irrelevar
To: "SERAFIN Kate" Cc: S 73 Irrelevant informatid, "SAVOCA Rosie" Subject: Re: Ray reef exhibit at Sea World

We are planning to open Ray Reef tomorrow without the public feeding sessions. The public will still be able to touch the animals but the staff will be the only ones feeding the animals so we can monitor food intakes and food drive.

We will have a marine sciences staff member present at the exhibit for the next 6 day to answer questions and to monitor the rays throughout the day

We will return to public feeds once we are happy with the rays behaviour and progress.

Kind regards

s.73 Irre

> On 1 Jun 2018, at 8:54 am, SERAFIN Kate < Kate. Serafin@daf.qld.gov.au> wrote:

> Thank you S.73

> When the exhibit is opened will public interaction occur?

> Regards

> Kate

-Original Message

> ---- original Message----> From s.73 Irrelevant info > Sent: Thursday, 31 May 2018 12:44 PM

> To: SERAFIN Kate

> Cc: 5 73 Irrelevant inf > Subject: Ray reef exhibit at Sea Wo

> Hi Kate

> We are starting to consider an opening date for our Ray Reef exhibit which has been closed to the public since the 12th March due to the Steptococcus outbreak in our stingrays.

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> Thanks

s.73

> Acting Head of Marine Sciences > Sea World

> Sent from my iPhone

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Date: 4/06/2018 9:31:39 AM From: s 73 Irreleva To: "SAVOCA Rosie"

Cc: "SERAFIN Kate", s.73 Irrelevant information Subject: Re: Ray reef exhibit at Sea World

Attachment : image002.png;

Thanks Kate

Yes they have the ability and room to move away from the edges of the pool. The pool is 1.8 m deep so the animals can get far away if they choose.

s.73 Irr

Sent from my iPhone

On 4 Jun 2018, at 9:21 am, SAVOCA Rosie < Rosie. Savoca@daf.qld.gov.au> wrote:

```
Hi s.73 I
```

Thank you for providing this information.

As long at the animals have the ability to move away from the public if they want

If you could please keep us updated how the progress goes that would be great

```
<image002.png>Rosie Savoca
             Senior Policy Officer, Exhibited Animals, Animal Biosecurity and Welfare
Biosecurity Queensland
Department of Agriculture and Fisheries
              T 07 3087 8028 M S 73 Irr 07 3087 8328 W www.daf.gld.gov.au
   107 3087 3082 MS ST 107 3087 8328

F osiesawoca@dalqld.govau W www.daf.qld.gov.au

41 George Street, Brisbane Old 4000

GPO Box 46, Brisbane Old 4001

Exhibited Animal Applications: exhibitedanimalapplications@daf.qld.gov.au

Exhibited Animal Enquires: exhibitedanimalapplications@daf.qld.gov.au

Website Link: http://www.business.qld.gov.au/industry/apriculture/exhibiting-animals-queensland
      -Original Message
Cc: Ca 72 Irrolovant in vrtp.com.a
Subject: Re: Ray reef exhibit at Sea World
                                               pvrtp.com.au>; 73 Irrelevant inforn@vrtp.com.au>; SAVOCA Rosie < Rosie.Savoca@daf.qld.gc
```

Hi Kate

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We will return to public feeds once we are happy with the rays behaviour and progress

Kind regards

s.73 l

```
Sent from my iPho
> On 1 Jun 2018, at 8:54 am, SERAFIN Kate < Kate.Serafin@daf.qld.gov.au > wrote:
> Thank you s 73
> When the exhibit is opened will public interaction occur?
> Regards
     --Original Message-
> From S.73 Irrelevant inforn@vrtp.com
> Sent: Thursday, 31 May 2018 12:44 PM
```

> To: SERAFIN Kate
> Cc: s.73 Irrelevant infor
> Subject: Ray reef exhibit at Sea Wo

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```
> Thanks
s.73 l
> Acting Head of Marine Sciences
 Sea World
> Sent from my iPhone
```

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Date: 4/06/2018 9:43:19 AM From: "SAVOCA Rosie To: S.73 Irrelevation S.73 Irrelevant information Subject : RE: Ray reef exhibit at Sea World Attachment : image001.png;image002.png; Thanks c 73

Rosie Savoca
Senior Policy Officer, Exhibited Animals, Animal Biosecurity and Welfare
Biosecurity Queensland
Department of Agriculture and Fisheries T 07 3087 8028 N 3 3 1 F 07 3087 8328
F rosie savoca@daf.qld.gov.au W www.daf.qld.gov.au
41 George Street, Brisbane Old 4000
GPO Box 46, Brisbane Old 4001
GPO Box 46, Brisbane Old 4001
Exhibited Animal Applications: exhibited animal applications@daf.qld.gov.au
Enquires: exhibited animal anuir@daf.qld.gov.au
w.business.qld.gov.au/industry/agriculture/exhibiting-animals-queensland Government

From 73 Irreld [mailto: S.73 Irreld vrtp.com.au]
Sent: Monday, 4 June 2018 9:32 AM
To: SAVOCA Rosie <Rosie.Savoca@daf.qld.gov.au> Cc: SERAFIN Kate <Kate_Serafin@daf,qld.gov.au>;
S. 73 Irrelevant in@vrtp.com.au>
Subject: Re: Ray reef exhibit at Sea World

Yes they have the ability and room to move away from the edges of the pool. The pool is 1.8 m deep so the animals can get far away if they choose.

Sent from my iPhone

On 4 Jun 2018, at 9:21 am, SAVOCA Rosie <<u>Rosie.Savoca@daf.qld.gov.au</u>> wrote

Hi s.73

Thank you for providing this information.

As long at the animals have the ability to move away from the public if they want.

If you could please keep us updated how the progress goes that would be great.

Thanks

```
<image002.png>Rosie Savoca
            Senior Policy Officer, Exhibited Animals, Animal Biosecurity and Welfare Biosecurity Queensland
Department of Agriculture and Fisheries
   T 07 3087 8028 70 70 3087 8328
E tosie-savoca @daf.qld.gov.au Www.daf.qld.gov.au
41 George Street, Brisbane Old 4000
GPO Box 46, Brisbane Old 4001
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Exhibited Animal Enquires: exhibited animal languiry@daf.qld.gov.au
Website Link: http://www.business.qld.gov.au/industry/agriculture/exhibiting-animals-queensland
      -Original Message-
From S.73 Irrele mailto S.73 Irrele wyttp.com.au]
Sent: Monday, 4 June 2018 9:13 AM
To: SERAFIN Kate < Kate. Serafin@daf.qld.gov.au >
Cc. 72 Irrelevent in @vrtp.co
Subject: Re: Ray reef exhibit at Sea World
                                                                                                                                       om.au>; SAVOCA Rosie <<u>Rosie.Savoca@daf.qld.gov.au</u>>
```

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We will return to public feeds once we are happy with the rays behaviour and progress.

Kind regards

s.73 Irrel

```
Sent from my iPhone
> On 1 Jun 2018, at 8:54 am, SERAFIN Kate <<u>Kate.Serafin@daf.qld.gov.au</u>> wrote
>Thank you 273
> When the exhibit is opened will public interaction occur?
> Regards
> Kate
>----Original Message-
> From g. 73. Irrelevant informevrtp.com.au>
> Sent: Thursday, 31 May 2018 12:44 PM
> To: SERAFIN Kate
> Cc: S 73 Irrelevant info
> Subject: Ray reef exhibit at Sea V
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> Thanks

> Hi Kate

s.73

> Acting Head of Marine Sciences

> Sea World

> Sent from my iPhone

22-210 File A Page 34 of 78

>
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3A www.villageroadshow.com.au &d=DwlFAg&c=tpTxelpKGw9ZbZ5Dlo0lybSxHDHliYjksG4icXfalgk&r=7wMVN7wtSmRKv9QVFgdgBGg22 m1yTPHHLHDbIMI8IM&m=xZSQ4UzSQfNXtvei6eNGVBodsgiLh4txm0RlqXlmU8g&s=YkFM

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Published of Prinker 2009

Date: 5/06/2018 9:29:30 AM From: "SERAFIN Kate To: "RODGER Ian"

Subject : FW: Ray reef exhibit at Sea World

Attachment : image002.png;

lan, this advice was provided by Rosie without my knowledge

The advice should have been to be to hold off on interaction or people coming into contact with the water for a few weeks as we decided last week and as Allison Crook requested originally

I cannot really tell them to cease all interaction now that they have been told they can

I will contact Seaworld today and make sure that they have hand washing facilities and a sign advising that people touching the water must wash their hands.

```
From: S.73 Irrelevant inform vrtp.com.au>
Sent: Monday, 4 June 2018 9:32 AM
To: SAVOCA Rosie
Cc: SERAFIN Kate s.73 Irrelevant info
Subject: Re: Ray reef exhib
```

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```
s.73 I
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Sent from my iPhone

On 4 Jun 2018, at 9:21 am, SAVOCA Rosie < Rosie.Savoca@daf.qld.gov.au > wrote:

```
H c 73 Ir
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If you could please keep us updated how the progress goes that would be great

Thanks

```
<image002.png>Rosie Savoca
Senior Policy Officer, Exhibited Animals, Animal Biosecu Biosecurity Queensland
Department of Agriculture and Fisheries
               T 07 3087 8028 M 7 7 1 F 07 3087 8328
E rosie.savoca@daf.qld.gov.au W www.daf.qld.gov.au
41 George Street, Brisbane Qld 4000
GPO Box 46, Brisbane Qld 4001
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Exhibited Animal Equipuies: exhibited animal enquiry@daf.qld.gov.au
Website Link: http://www.business.qld.gov.au/industry/agriculture/exhibiting-animals-queensland
  -----Original Message-----
From S. 73 Irreld [mailto: S.73 Irreld @vrtp.com.au]
Sent: Monday, 4 June 2018 9:13 AM
Cc STA Irrelevant informers as Say Irrelevant informers Research Research State Service State Servic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rosie <<u>Rosie.Savoca@daf.qld.gov.au</u>>
```

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Kind regards

s 73 lr

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Sent from my iPhone
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> Thank you S.73
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> Regards
> Kate
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> From: S. 73 Irrelevant inforr@vrtp.com.au>

> Sent: Thursday, 31 May 2018 12:44 PM

> To: SERAFIN Kate
> Cc: s.73 Irrelevant info
> Subject: Ray reef exhibit at Sea W
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> Thanks
> s.73
> Acting Head of Marine Sciences
> Sea World
> Sent from my iPhone
```

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Published on DAK Dischosure Look

Published on Part Act 2009

>-----

Date: 5/06/2018 4:43:47 PM From: "SERAFIN Kate"

To: "SAVOCA Rosie", "RODGER Ian"

Subject : Sea world ray exhibit

FYI

Just spoke to s.73 lr regarding a sea jelly exhibit.

We also discussed the ray exhibit & s.73 Irre has advised they have not had a death going on six days. They have agreed to have a staff member stay at the exhibit during interaction to monitor behaviour and ensure the Rays are displaying normal behaviours. Have advised to notify if there are any further illness/deaths and s.73 Irr has agreed to also cease interaction if there are any negative behavioural changes or of course illness and communicate with us regarding the period of time for cessation.

If communication occurs in my absence and it really cannot wait until Tuesday please take the above and all other aspects - animal welfare, increased immune deficiency & what may result as a potential further disease exposure due to bacteria on people's hands/water etc. etc. and discuss with each other our vets before providing advice. Note that s.73 Irrethought that we were only concerned about the animals being able to , set the domain of the control of t swim away but much more should be taken into consideration particularly given the rays have only just been vaccinated.

Kate Serafin

Senior Policy Officer, Exhibited Animals Unit, Biosecurity Queensland Corporate

DAF

T: 07 3087 8024 M: s.73 Irrelevant i F: 07 3087 8328 W: www.daf.qld.gov.au

E: kate.serafin@daf.qld.gov.au

E:exhibitedanimalenquiry@daf.qld.gov.au

Sent from my iPhone

Date: 11/06/2018 9:16:30 AM From: s.73 Irrelevant

To: "SERAFIN Kate", "Exhibited Animals Enquiry", "SAVOCA Rosie"

Subject: Ray reef exhibit at sea world

Kate asked I call if we had any further mortalities at our Ray reef exhibit here at Sea World. I have tried calling her mobile but left a message as there was no answer.

We have had an estuary ray die yesterday afternoon. This is the first animal mortality since we reopened the exhibit to the public.

Please advise if there is any action you wish for us to take?

Kind regards

s.73 Irrele

Acting Head of marine sciences Sea World

Sent from my iPhone

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Nzl78g3jWgV-fqcxTzqb_B08CEYF560oA7lgVkHaoo&e= Published of Pall Ret 2009

22-210 File A Page 39 of 78 Date: 11/06/2018 12:13:44 PM From: "SAVOCA Rosie"

To: "SERAFIN Kate", "RODGER Ian"

Cc: "Exhibited Animals Enquiry"

Subject: RE: Ray reef exhibit at sea world Attachment: image001.png;image003.png;

Hi Kate and Ian

Spoke to s.73 lrr this morning regarding below email.

The estuary ray that died yesterday had been vaccinated, and an autopsy will be undertaken today.

l advised s.73 Im (after speaking to lan) to stop all public interactions and to close exhibit to the public.

s.73 Irrewas fine with this but did question why the exhibit had to be closed to the public as the disease is not transmittable to humans (as advised by vet s.73 Ir nd research papers).

I advised s.73 Irrthat if she could close it for today and Kate will give her a call tomorrow morning to advise further.

s. 73 Irrasked if Kate could please call her before 9.30am as that is time they open to the public.

did also advise that vet s.73 Inthought it would be good to speak to a BQ vet regarding the matter. I advised her that this could be a possibility if they wanted and to raise it with Kate tomorrow.

III email s.73 Irr back to have it in writing to stop interactions and close exhibit today.

Thanks



Government

Senior Policy Officer, Exhibited Animals, Animal Biosecurity and Welfare Biosecurity Queensland

Department of Agriculture and Fisheries

T 07 3087 8028 M s.73 Irrelev F 07 3087 8328

E rosie.savoca@daf.qld.gov.au W www.daf.qld.gov.au

41 George Street, Brisbane Qld 4000

GPO Box 46. Brisbane Qld 4001

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 $\textbf{Exhibited Animal Enquires:} \, \underline{exhibitedanimal enquiry@daf.qld.gov.au}$

Website Link: http://www.business.qld.gov.au/industry/agriculture/exhibiting-animals-queensland

----Original Message-

From: s.73 Irrelevant [mailto s.73 Irrelevant i@vrtp.com.au]

Sent: Monday, 11 June 2018 9:17 AM

To: SERAFIN Kate <Kate.Serafin@daf.qld.gov.au>; Exhibited Animals Enquiry <ExhibAnimalEnq@daf.qld.gov.au>; SAVOCA Rosie

<Rosie.Savoca@daf.qld.gov.au> Subject: Ray reef exhibit at sea world

Hi all

Kate asked I call if we had any further mortalities at our Ray reef exhibit here at Sea World. I have tried calling her mobile but left a message as there was no answer.

We have had an estuary ray die yesterday afternoon. This is the first animal mortality since we reopened the exhibit to the public.

Please advise if there is any action you wish for us to take?

Kind regards

s.73 Irrelevant info

Acting Head of marine sciences

Sea World

Sent from my iPhone

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Date: 11/06/2018 12:24:03 PM From: "Exhibited Animals Enquiry"

To: s.73 Irrelevant inforn

Cc: "SERAFIN Kate", "Exhibited Animals Enquiry", "RODGER Ian"

Subject: RE: Ray reef exhibit at sea world Attachment: image001.png;image003.png;

H s.73 Irre

Thank you again for emailing and calling regarding the estuary rays and a further mortality at the Ray Reef exhibit at Sea World.

As advised, can you please cease the public interaction and close the exhibit to the public for today.

Kate Serafin will contact you tomorrow to discuss further.

Thank you Rosie Savoca



Regards

Exhibited Animals Biosecurity Queensland Department of Agriculture and Fisheries

QueenslandGovernment

T 13 25 23 W www.daf.qld.gov.au
41 George Street, Brisbane Qld 4000

GPO Box 46, Brisbane Qld 4001

Exhibited Animals Enquiry: exhibitedanimalenquiry@daf.qld.gov.au

Exhibited Animals Applications: exhibitedanimalapplications@daf.qld.gov.au

Website Link: http://www.business.qld.gov.au/industry/agriculture/exhibiting-animals-queensland

----Original Message-----

From: s.73 Irrelevant [mailto: s.73 Irrelevant ii vrtp.com.au]

Sent: Monday, 11 June 2018 9:17 AM

To: SERAFIN Kate <Kate.Serafin@daf.qld.gov.au>; Exhibited Animals Enquiry <ExhibAnimalEnq@daf.qld.gov.au>; SAVOCA Rosie

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Acting Head of marine sciences

Sea World

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Date: 11/06/2018 12:28:06 PM From: s.73 Irrelevant info

To: "Exhibited Animals Enquiry"

Cc: "SERAFIN Kate", "RODGER Ian" Subject: Re: Ray reef exhibit at sea world

Attachment: image003.png;

Hi Rosie

The Exhibit has been closed for the remainder of the day.

Cheers

s.73 Irreleva

Sent from my iPhone

On 11 Jun 2018, at 12:24 pm, Exhibited Animals Enquiry < ExhibAnimalEnq@daf.qld.gov.au wrote:

Hi s 73 Irre

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Chouse Charles

As advised, can you please cease the public interaction and close the exhibit to the public for today.

Kate Serafin will contact you tomorrow to discuss further.

Thank you Rosie Savoca

<image003.png>Regards

Exhibited Animals
Biosecurity Queensland
Department of Agriculture and Fisheries

T 13 25 23 W <u>www.daf.qld.gov.au</u> 41 George Street, Brisbane Qld 4000

GPO Box 46, Brisbane Qld 4001

Exhibited Animals Enquiry: exhibitedanimalenquiry@daf.qld.gov.au

 $Exhibited\ Animals\ Applications: \underline{exhibited animal applications@daf.qld.gov.au}$

Website Link: http://www.business.qld.gov.au/industry/agriculture/exhibiting-animals-queensland

-----Original Message-----

From: s.73 Irrelevant | [mailto s.73 Irrelevant i @vrtp.com.au]

Sent: Monday, 11 June 2018 9:17 AM

 $To: SERAFIN \ Kate < \underline{Kate.Serafin@daf.qld.gov.au} >; Exhibited\ Animals\ Enquiry < \underline{ExhibAnimalEnq@daf.qld.gov.au} >; SAVOCA\ Rosie < \underline{Control of the Control of the$

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Kind regards

s.73 Irrelevant in

Acting Head of marine sciences

Sea World

Sent from my iPhone

22-210 File A Page 42 of 78

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1LW_24O8cBM8X5--J78X9uDXG-1LgUpCMRlkxAQq4&m=I5dZME9KiHHyZWyWRZNSyUEz_g04qyF60Z-

iLQXBkdM&s=qTn0CDexzSXyOM9D8c5ke K 4 w-doKOZV GF44tOso&e=

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Date: 12/06/2018 8:23:29 AM From: "SERAFIN Kate" To: "s.73 Irrelevant inf"

Cc: "SAVOCA Rosie", "RODGER Ian"

Subject: Ray Exhibit

Attachment: image001.png;image002.png;

H s.73 Irrele

As discussed this morning our recommendation for ceasing public interaction activities within the ray exhibit was based on animal welfare concerns.

Thank you for ensuring that at this point in time there is no public feeding opportunities. We do recommend that this continues.

Please keep us updated with regards to any further deaths.

Regards Kate



Senior Policy Officer, Exhibited Animals Biosecurity Queensland Department of Agriculture and Fisheries

T 07 3087 8024 M S.73 Irreleve kate.serafin@daf.qld.gov.au W www.daf.qld.gov.au Level 2, 41 George Street, Brisbane Qld 4000 GPO Box 46, Brisbane Qld 4001

Exhibited Animals Enquiry: exhibited animal enquiry@daf.gld.gov.au

exhibite a second of the control of Exhibited Animals Applications: exhibitedanimalapplications@daf.qld.gov.au

Website Link: http://www.business.qld.gov.au/industry/agriculture/exhibiting-animals-queensland

Date: 12/06/2018 9:51:35 AM From: s.73 Irrelevant info

To: "SERAFIN Kate"

Cc: "SAVOCA Rosie", "RODGER Ian", s.73 Irrelevant inf

Subject: RE: Ray Exhibit

Attachment: image001.png;image003.png;

Hi Kate,

Animal welfare is also our first priority and following discussions with our vet and curator, we are going to operate the exhibit with an Animal Care Team Member and a Guest Services Team Member present to control guest interactions with the Rays. Please rest assured, should we identify any animal behavioural concerns, we will close the exhibit.

I can also confirm we are not offering public feeding and will advise your office of our plans prior to recommencing.

Thanks and please give me a call if you have any questions.

Regards

s.73 Irreleva

From: SERAFIN Kate [mailto:Kate.Serafin@daf.qld.gov.au]

Sent: Tuesday, 12 June 2018 8:24 AM

To: s.73 Irrelevant

Cc: SAVOCA Rosie; RODGER Ian

Subject: Ray Exhibit

Hi s.73 Irr

As discussed this morning our recommendation for ceasing public interaction activities within the ray exhibit was based on animal welfare

Thank you for ensuring that at this point in time there is no public feeding opportunities. We do recommend that this continues.

Please keep us updated with regards to any further deaths.

Regards Kate



Senior Policy Officer, Exhibited Animals Biosecurity Queensland Department of Agriculture and Fisheries

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Date: 12/06/2018 3:30:48 PM From: "RODGER Ian" To: "LAMBOURNE Rowan" Cc: "SERAFIN Kate" Subject: FW: Ray Exhibit

Attachment: Re: Ray reef exhibit at sea world; RE: Ray reef exhibit at sea world; RE: Seaworld Ray spp. outbreak - Streptococcus agalactiae Ray Reef Exhibit; image001.png; image002.png;

Hi Rowan

Seaworld have had a number of ray species deaths over a number of weeks/months at an interactive tank.

Seaworld went through a tank decon and quarantine / vaccination process of the remaining rays.

Against our recommendation they resumed interaction earlier that we thought appropriate and this week they advised of a further death. Whilst we technically cannot prevent them opening the interactive tank facility, we have made a recommendation that they do not open the tank to the public for welfare reasons (there are no zoonotic risks according to literature) until they are able to determine that the vaccination has been successful.

This is to advise of our approach to this and continued communication with Seaworld.

Regards Ian

Ian Rodger
Manager, Animal Welfare Policy
Animal Biosecurity & Welfare
Biosecurity Queensland
s.73 Irrelevant

From: s.73 Irrelevant [mailto: s.73 Irrelevant i@vrtp.com.au]

Sent: Tuesday, 12 June 2018 9:52 AM

To: SERAFIN Kate <Kate.Serafin@daf.qld.gov.au>

Cc: SAVOCA Rosie <Rosie.Savoca@daf.qld.gov.au>; RODGER Ian <Ian.Rodger@daf.qld.gov.au>; s.73 Irrelevant information @vrtp.com.au>

Subject: RE: Ray Exhibit

Hi Kate,

Animal welfare is also our first priority and following discussions with our vet and curator, we are going to operate the exhibit with an Animal Care Team Member and a Guest Services Team Member present to control guest interactions with the Rays. Please rest assured, should we identify any animal behavioural concerns, we will close the exhibit.

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Regards

s.73 Irrele

From: SERAFIN Kate [mailto:Kate.Serafin@daf.qld.gov.au]

Sent: Tuesday, 12 June 2018 8:24 AM

To: s.73 Irrelevant

Cc: SAVOCA Rosie; RODGER Ian

Subject: Ray Exhibit

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Please keep us updated with regards to any further deaths.

Regards

Kate



Senior Policy Officer, Exhibited Animals Biosecurity Queensland Department of Agriculture and Fisheries

T 07 3087 8024 M S.73 Irrelev E kate.serafin@daf.qld.gov.au W www.daf.qld.gov.au

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Exhibited Animals Enquiry: exhibitedanimalenquiry@daf.qld.gov.au

 $\textbf{Exhibited Animals Applications:} \, \underline{\texttt{exhibitedanimalapplications@daf.qld.gov.au}} \\$

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Date : 11/06/2018 12:28:06 PM From : s.73 Irrelevant infor

To : "Exhibited Animals Enquiry"
Cc : "SERAFIN Kate" , "RODGER Ian"
Subject : Re: Ray reef exhibit at sea world

Attachment: image003.png;

Hi Rosie

The Exhibit has been closed for the remainder of the day.

Cheers

s.73 Irrele

Sent from my iPhone

On 11 Jun 2018, at 12:24 pm, Exhibited Animals Enquiry < ExhibAnimalEnq@daf.qld.gov.au wrote:

Hi s.73 Irrele

Thank you again for emailing and calling regarding the estuary rays and a further mortality at the Ray Reef exhibit at Sea World.

As advised, can you please cease the public interaction and close the exhibit to the public for today.

Kate Serafin will contact you tomorrow to discuss further.

Thank you Rosie Savoca

<image003.png>Regards

Exhibited Animals
Biosecurity Queensland

Department of Agriculture and Fisheries

T 13 25 23 W <u>www.daf.qld.gov.au</u> 41 George Street, Brisbane Qld 4000 GPO Box 46, Brisbane Qld 4001

Exhibited Animals Enquiry: exhibitedanimalenquiry@daf.qld.gov.au

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----Original Message----

From: s.73 Irrelevant in mailto s.73 Irrelevant in wrtp.com.au]

Sent: Monday, 11 June 2018 9:17 AM

To: SERAFIN Kate <<u>Kate.Serafin@daf.qld.gov.au</u>>; Exhibited Animals Enquiry <<u>ExhibAnimalEnq@daf.qld.gov.au</u>>; SAVOCA Rosie

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Acting Head of marine sciences

Sea World

Sent from my iPhone

22-210 File A Page 48 of 78

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1LW_24O8cBM8X5--J78X9uDXG-1LgUpCMRlkxAQq4&m=I5dZME9KiHHyZWyWRZNSyUEz_g04qyF60Z-

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Date : 11/06/2018 12:13:44 PM From : "SAVOCA Rosie"

To : "SERAFIN Kate", "RODGER Ian"
Cc : "Exhibited Animals Enquiry"
Subject : RE: Ray reef exhibit at sea world
Attachment: image001.png;image003.png;

Hi Kate and Ian

Spoke to s.73 lrr this morning regarding below email.

The estuary ray that died yesterday had been vaccinated, and an autopsy will be undertaken today.

I advised S.73 Irr (after speaking to lan) to stop all public interactions and to close exhibit to the public.

s.73 Irr was fine with this but did question why the exhibit had to be closed to the public as the disease is not transmittable to humans (as advised by vet s.73 Irand research papers).

I advised s.73 Irrehat if she could close it for today and Kate will give her a call tomorrow morning to advise further.

s.73 Irreasked if Kate could please call her before 9.30am as that is time they open to the public.

s.73 Irr did also advise that vet s.73 Ithought it would be good to speak to a BQ vet regarding the matter. I advised her that this could be a possibility if they wanted and to raise it with Kate tomorrow.

Ill email S.73 Ir back to have it in writing to stop interactions and close exhibit today.

Thanks



Rosie Savoca

Senior Policy Officer, Exhibited Animals, Animal Biosecurity and Welfare Biosecurity Queensland

Department of Agriculture and Fisheries

T 07 3087 8028 M s.73 Irreleva 07 3087 8328 E rosie.savoca@daf.qld.gov.au W www.daf.qld.gov.au

41 George Street, Brisbane Qld 4000 GPO Box 46, Brisbane Qld 4001

Exhibited Animal Applications: exhibitedanimalapplications@daf.qld.gov.au

Exhibited Animal Enquires: exhibitedanimalenquiry@daf.qld.gov.au

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----Original Message----

From: s.73 Irrelevant [mailto: s.73 Irrelevant in ovrtp.com.au]

Sent: Monday, 11 June 2018 9:17 AM

To: SERAFIN Kate <Kate.Serafin@daf.qld.gov.au>; Exhibited Animals Enquiry <ExhibAnimalEnq@daf.qld.gov.au>; SAVOCA Rosie

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Sea World

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Date : 4/04/2018 1:00:53 PM From : "SERAFIN Kate" To : "BUNCE Ashley"

Cc : "RODGER Ian", "SAVOCA Rosie"

Subject : RE: Seaworld Ray spp. outbreak - Streptococcus agalactiae Ray Reef Exhibit

Attachment: image002.png;image003.png;image004.jpg;

Thanks Allison

Excluding keepers, there has been no public contact with the rays.

Regards

Kate

From: BUNCE Ashley

Sent: Wednesday, 4 April 2018 12:55 PM

To: SERAFIN Kate

Cc: RODGER Ian; SAVOCA Rosie

Subject: FW: Seaworld Ray spp. outbreak - Streptococcus agalactiae Ray Reef Exhibit

FYI and advice

From: CROOK Allison

Sent: Wednesday, 4 April 2018 12:54 PM

To: BUNCE Ashley < Ashley.Bunce@daf.qld.gov.au >

Subject: RE: Seaworld Ray spp. outbreak - Streptococcus agalactiae Ray Reef Exhibit

Thanks for the update - can you confirm no public contact with the rays?

From: BUNCE Ashley

Sent: Wednesday, 4 April 2018 10:26 AM

To: CROOK Allison < Allison.Crook@daf.qld.gov.au >

Subject: FW: Seaworld Ray spp. outbreak - Streptococcus agalactiae Ray Reef Exhibit

FYI

From: SERAFIN Kate

Sent: Wednesday, 4 April 2018 10:24 AM

To: BUNCE Ashley Ashley.Bunce@daf.qld.gov.au; RODGER Ian Ashley.Bunce@daf.qld.gov.au;

Cc: SAVOCA Rosie < Rosie. Savoca@daf.qld.gov.au>

Subject: Seaworld Ray spp. outbreak - Streptococcus agalactiae Ray Reef Exhibit

Seaworld Vet s.73 Irreleva

Good morning Ash/lan

Just a quick update on the S. agalactiae ray outbreak at Seaworld after talking to s.73 lr

- As per the email notification there has been an outbreak of Streptococcus agalactiae in the Seaworld Ray Reef exhibit with 26 mortalities over various ray spp. Predominantly Estuary rays however there were also other spp. held.
- Noting that there are very small distinctions between isolates during testing of wild caught populations I have asked 3.73 Ir f molecular characterization had been carried out or is it an assumption that the isolates are the same lineage sequence as the last outbreak?
- s.73 Ir has advised that they are assuming at this point in time but have carried out testing and are waiting on results.
- I have asked him if a targeted vaccine will be created if the results confirm a different serotype to the last outbreak the answer was yes and they shall continue annual vaccinations.
- When asked what the last vaccination program involved s.73 ladvised it was a 2 x 4 week apart vaccination followed by annual vaccination if required (signs, symptoms).
- S.73 In confirmed that the tank does filter the same water through Shark Bay water however they have large filtration systems and are running UV over the filtration lines s.73 has advised that other species were not affected last time either (prevalent in the rays rather than sharks etc.)
- All ray spp. have been taken out of the tank and placed in quarantine pools. The tank has been stripped down and is currently being treated.
- I questioned s.73 labout ray transfers and he has advised that they have not had an intake (from the wild) since the last outbreak and have ceased breeding the rays to ensure population control.

- s.73 Irralso confirmed that they are not releasing any individuals into the wild given they have taken steps to ensure breeding does not
- s.73 Iradvised that the park has contacted relevant people WH&S/Fisheries and even though the risk is low they are taking measures to ensure staff are protected.

I have asked s.73 to keep us in the loop and advise once tests are confirmed.

Regards

Kate



Kate Serafin Senior Policy Officer, Exhibited Animals Biosecurity Queensland Department of Agriculture and Fisheries

T 07 3087 8024 M s. 73 Irrelev Ekate.serafin@daf.qld.gov.au W www.daf.qld.gov.au Level 2, 41 George Street, Brisbane Qld 4000 GPO Box 46, Brisbane Qld 4001

Exhibited Animals Enquiry: exhibitedanimalenquiry@daf.qld.gov.au

Exhibited Animals Applications: exhibited animal applications@daf.qld.gov.au

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Le Website Link: http://www.business.qld.gov.au/industry/agriculture/exhibiting-animals-queenslan

From: BUNCE Ashley

Sent: Tuesday, 3 April 2018 6:44 PM

To: SERAFIN Kate Cc: SAVOCA Rosie Subject: Re: Ray Reef

Thanks Kate.

I will give you a call tomorrow.

Should Sea World also notify WHSQ?

Cheers, Ash

On 3 Apr 2018, at 4:48 pm, SERAFIN Kate < Kate.Serafin@daf.qld.gov.au> wrote:

FYI - I have not contacted them yet.

I will also ensure they have contacted fisheries.

From: s.73 Irrelevant il mailto: s.73 Irrelevant ir wrtp.com.au]

Sent: Tuesday, 3 April 2018 3:14 PM

To: SERAFIN Kate Cc: s.73 Irrelevar Subject: Ray Reef

Hi Kate

I am writing to inform you of a disease outbreak we have encountered in our Ray Reef exhibit here at Sea World over recent

Please see attached issues paper by our veterinarian s.73 Irrelevaoutlining the outbreak to date and our actions to try and halt the disease. I have also attached a copy of a paper published in 2017 following outbreaks of a similar nature in 2009 and 2010.

Please contact myself or s.73 Irrelevan s.73 Irreleval if you require additional information regarding this issue.

Kind regards,

s.73 Irrelevant inf

Acting Head of Marine Sciences & Curator of Fishes | T: +61 7 5588 2480| F: +61 7 5588 2280 | M: s.73 Irrelevan

Sea World | Sea World Drive, Main Beach QLD 4217 | seaworld.com.au





More Info

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<ISSUE PAPER RE RECENT DEATHS IN STINGRAYS AT SEA WORLD 2018.doc> Published of Principles

<Bowater et al-2017-Journal of Fish Diseases.pdf>

Date: 19/06/2018 12:35:52 PM From: 's.73 Irrelevant inf To: "SERAFIN Kate"

Cc: "SAVOCA Rosie", "RODGER Ian" s.73 Irrelevant inform

Subject: Re: Ray Exhibit Attachment: image002.png;

Hi Kate

There has been another mortality at Ray Reef. This was an estuary ray. We will be doing the post mortem this afternoon to determine cause of death. The last ray that died did not die from Steptococcus. There were unidentified parasite eggs/cysts on the gills causing inflammation.

We had removed todays animal from the exhibit this morning due to lethargy and were holding it in an off exhibit tank.

I will notify you of the cause of death once we know what it is.

Thanks

s.73 Irreleva

Sent from my iPhone

Disclosul On 12 Jun 2018, at 7:05 pm, SERAFIN Kate < Kate. Serafin@daf.gld.gov.au> wrote:

Many thanks s.73 Irre

Regards

Kate

From: s.73 Irrelevant | s.73 Irrelevant | @vrtp.com.aux

Sent: Tuesday, 12 June 2018 9:52 AM

To: SERAFIN Kate

Cc: SAVOCA Rosie; RODGER Ian; s.73 Irrelevar

Subject: RE: Ray Exhibit

Hi Kate,

Animal welfare is also our first priority and following discussions with our vet and curator, we are going to operate the exhibit with an Animal Care Team Member and a Guest Services Team Member present to control guest interactions with the Rays. Please rest assured, should we identify any animal behavioural concerns, we will close the exhibit.

I can also confirm we are not offering public feeding and will advise your office of our plans prior to recommencing.

Thanks and please give me a call if you have any questions.

Regards

s.73 Irrelevar

From: SERAFIN Kate [mailto:Kate.Serafin@daf.qld.gov.au]

Sent: Tuesday, 12 June 2018 8:24 AM

To: s.73 Irrelevant

Cc: SAVOCA Rosie; RODGER Ian

Subject: Ray Exhibit

Hi s.73 Irrele

As discussed this morning our recommendation for ceasing public interaction activities within the ray exhibit was based on animal welfare concerns.

Thank you for ensuring that at this point in time there is no public feeding opportunities. We do recommend that this continues.

Please keep us updated with regards to any further deaths.

Regards

Kate

22-210 File A Page 54 of 78 <image002.png>Kate Serafin

Senior Policy Officer, Exhibited Animals

Biosecurity Queensland

Department of Agriculture and Fisheries

T 07 3087 8024 M s.73 Irrelev E kate.serafin@daf.qld.gov.au W www.daf.qld.gov.au

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 $\textbf{Exhibited Animals Enquiry:} \underline{exhibitedanimalenquiry@daf.qld.gov.au}$

 $\textbf{Exhibited Animals Applications:} \, \underline{\texttt{exhibitedanimalapplications@daf.qld.gov.au}} \\$

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JER with an as listed or For General Enquiries please contact the appropriate division as listed on our website http://www.villageroadshow.com.au/

Date: 20/06/2018 8:27:55 AM From: "Exhibited Animals Enquiry" To: "S.73 Irrelevant inf" Cc: "SAVOCA Rosie", "RODGER Ian", "S.73 Irrelevar" Subject: RE: Ray Exhibit Many thanks S.73 Irre
Regards Kate
NGLE .
From: s.73 Irrelevant information @vrtp.com.au> Sent: Tuesday, 19 June 2018 1:07 PM To: Exhibited Animals Enquiry Cc: SAVOCA Rosie; RODGER Ian; Subject: Re: Ray Exhibit
Hi Kate
Yes we have contacted s.73 Irrelevant information from Uni of Qld Parasitology department and are waiting for a response.
We have also sent the tissue away for pathology and done a in-house squash mount however have not been able to identify them yet.
Hopefully s.73 Irrele can assist us with a positive ID.
Cheers
s.73 Irreleva
Sent from my iPhone
On 19 Jun 2018, at 1:02 pm, Exhibited Animals Enquiry < ExhibAnimalEnq@daf.qld.gov.au > wrote:
Good afternoon s.73 Irre
Many thanks for notifying us of the recent death.
Will there be further investigation to identify what parasite eggs/cysts were identified on the last ray?
As suggested, please continue to keep us informed.
Regards
Kate
From: s.73 Irrelevant information vrtp.com.au> Sent: Tuesday, 19 June 2018 12:36 PM To: SERAFIN Kate Cc: SAVOCA Rosie; RODGER Ian; s.73 Irreleval Subject: Re: Ray Exhibit
Hi Kate
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s.73 Irrele

22-210 File A Page 56 of 78

Sent from my iPhone

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Kate

<image002.png>Kate Serafin

Senior Policy Officer, Exhibited Animals Biosecurity Queensland Department of Agriculture and Fisheries

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22-210 File A Page 58 of 78

Date: 8/08/2018 11:25:05 AM
From: "SERAFIN Kate"
To: s.73 Irrelevant informa

Cc: "SAVOCA Rosie", "RODGER Ian", s.73 Irrelevant inf

Subject : RE: Ray Exhibit
Good morning s.73 Irre

Many thanks for the update.

This is really good news and my apologies for the delayed response.

Regards

Kate

From: s.73 Irrelevant information @vrtp.com.au>

Sent: Monday, 30 July 2018 2:21 PM

To: SERAFIN Kate

Cc: SAVOCA Rosie; RODGER Ian; s.73 Irrelevant inf Subject: RE: Ray Exhibit

Hi Kate

Just keeping you up to date on our Ray disease outbreak here at Sea World.

The last animal to die in the is exhibit was on the 19th June and all animals surviving have returned to normal behaviour and appetence over the past month. We are intending to resume the public feeding from this Saturday.

Any concerns please contact me..

Kind regards

s.73 Irrelevant inf

Acting Head of Marine Sciences | T: +61 7 5588 2480 | F: +61 7 5588 2280 | M: s.73 Irrelevant

Sea World | Sea World Drive, Main Beach, QLD 4217 | www.themeparks.com.au

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Sent: Tuesday, 19 June 2018 12:36 PM

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Regards

Kate

<image002.png>Kate Serafin

Senior Policy Officer, Exhibited Animals Biosecurity Queensland Department of Agriculture and Fisheries

T 07 3087 8024 M s.73 Irrelev E kate.serafin@daf.qld.gov.au W www.daf.qld.gov.au Level 2. 41 George Street. Brisbane Old 4000

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Date: 6/04/2018 11:59:41 AM From: "SERAFIN Kate"

To: "RODGER Ian", "SAVOCA Rosie"

Subject: Fwd: Seaworld outbreak of Streptococcus agalactiae in ray population - Ray Reef Exhibit

Attachment: image003.png;image005.jpg;

Kate Serafin

Senior Policy Officer, Exhibited Animals Unit, Biosecurity Queensland Corporate

DAF

T: 07 3087 8024 M s.73 Irrelevant F: 07 3087 8328 W: www.daf.qld.gov.au

E: kate.serafin@daf.qld.gov.au

E:exhibitedanimalenquiry@daf.qld.gov.au

Sent from my iPhone

Begin forwarded message:

From: s.73 Irrelevant information @vrtp.com.au>

Date: 5 April 2018 at 4:45:37 pm AEST

Hi Kate,

Just to clarify a few points:

We have not notified fisheries as we were not aware of any necessity to do that.

The exhibit in which the rays were kept is a public contact exhibit where people feed the animals. This was closed to the public on 12th March 2018, as soon as we had diagnosed the problem.

s.73 Irres at work next week Mon/Tues if you wanted to have a phone hook up either of those days to assess where we are at. Otherwise I le around all week.

s.73 Irrel

From: SERAFIN Kate [mailto:Kate.Serafin@daf.qld.gov.au]

Sent: Wednesday, 4 April 2018 1:09 PM

To: s.73 Irrelevant information

Subject: Seaworld outbreak of Streptococcus agalactiae in ray population - Ray Reef Exhibit

Good afternoon s.73 Irrelevant in

s.73 Irrthanks for attaching the paper and for advising us of the issue.

Thank for your time on the phone this morning s.73 Irl and for advising that you have contacted the relevant authorities WH&S/Fisheries.

Unexplained or abnormally high mortality rate or morbidity of animals recorded on your Exhibition Licence is considered a serious incident under s80 of the Exhibited Animals Act 2015. Please ensure that in future and as per s81 of the Act, the park notifies Exhibited Animals as soon as it becomes aware of any of the listed issues under s80 of the Act. I have attached the Act for your reference.

Excluding the attached information I have noted that;

- There have been no wild caught intakes into the exhibit for a number of years.
- In recent years population control measures have been implemented to ensure breeding does not occur on transfers out.
- There has been no public interaction with the various species of ray.
- A vaccine will be created as required once testing is confirmed.
- All rays have been placed in quarantine tanks and are being treated and will continue to be treated.
- The exhibit has been emptied and is undergoing treatment.
- The exhibit water is filtered through other exhibits however no other spp. in separate exhibits are showing signs/symptoms of Streptococcus agalactiae.

As discussed could you please provide a general update mid next week regarding testing, mortality etc.

Many thanks

Kate

Kate Serafin
Senior Policy Officer, Exhibited Animals
Biosecurity Queensland
Department of Agriculture and Fisheries

T 07 3087 8024 M S.73 Irrele) E kate.serafin@daf.qld.gov.au W www.daf.qld.gov.au
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From: s.73 Irrelevant [mailto s.73 Irrelevant in overtp.com.au]
Sent: Tuesday, 3 April 2018 3:14 PM

To: SERAFIN Kate Cc: s.73 Irreleva Subject: Ray Reef

Hi Kate

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Please see attached issues paper by our veterinarian s.73 Irrelev outlining the outbreak to date and our actions to try and halt the disease. I have also attached a copy of a paper published in 2017 following outbreaks of a similar nature in 2009 and 2010.

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Kind regards,

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		World Drive, Main Beach QLD 4217 seaworld.com.au	
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Date: 11/06/2018 9:16:30 AM From: s.73 Irrelevant info

To: "SERAFIN Kate", "Exhibited Animals Enquiry", "SAVOCA Rosie"

Subject: Ray reef exhibit at sea world

Kate asked I call if we had any further mortalities at our Ray reef exhibit here at Sea World. I have tried calling her mobile but left a message as there was no answer.

We have had an estuary ray die yesterday afternoon. This is the first animal mortality since we reopened the exhibit to the public.

Please advise if there is any action you wish for us to take?

Kind regards

s.73 Irrelevant in Acting Head of marine sciences Sea World

Sent from my iPhone

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For General Enquiries please contact the appropriate division as listed on our website https://urldefense.proofpoint.com/v2/url?u=http-3A www.villageroadshow.com.au &d=DwlFAg&c=tpTxelpKGw9ZbZ5Dlo0lybSxHDHIiYjksG4icXfalgk&t=F-1LW 2408cBM8X5-J78X9uDXG-Aic AinOCDE $\underline{\textbf{1LgUpCMRlkxAQq4\&m=15dZME9KiHHyZWyWRZNSyUEz}}\ \ \underline{\textbf{204qyF60Z-iLQXBkdM\&s=qTn0CDexxSXyOM9D8c5ke}}\ \ \underline{\textbf{K}}\ \ \underline{\textbf{4}}\ \ \underline{\textbf{w-doKOZV}}\ \ \underline{\textbf{GF44tOso\&e=15dZME9KiHHyZWyWRZNSyUEz}}\ \ \underline{\textbf{204qyF60Z-iLQXBkdM\&s=qTn0CDexxSXyOM9D8c5ke}}\ \ \underline{\textbf{K}}\ \ \underline{\textbf{4}}\ \ \underline{\textbf{w-doKOZV}}\ \ \underline{\textbf{GF44tOso\&e=15dZME9KiHHyZWyWRZNSyUEz}}\ \ \underline{\textbf{204qyF60Z-iLQXBkdM\&s=qTn0CDexxSXyOM9D8c5ke}}\ \ \underline{\textbf{K}}\ \ \underline{\textbf{4}}\ \ \underline{\textbf{w-doKOZV}}\ \ \underline{\textbf{GF44tOso\&e=15dZME9KiHHyZWyWRZNSyUEz}}\ \ \underline{\textbf{204qyF60Z-iLQXBkdM}}\ \ \underline{\textbf{204qyF60Z$

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Sea World | Sea World Drive, Main Beach, QLD 4217 | www.themeparks.com.au

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Exhibited Animals Enquiry: exhibitedanimalenquiry@daf.qld.gov.au

 $\textbf{Exhibited Animals Applications:} \, \underline{exhibitedanimalapplications@daf.qld.gov.au} \\$

Website Link: http://www.business.qld.gov.au/industry/agriculture/exhibiting-animals-queensland

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Date: 4/04/2018 7:41:09 AM From: "SAVOCA Rosie"

To: "SERAFIN Kate", "BUNCE Ashley"

Subject: RE: Ray Reef

Attachment: image002.png;image003.png;image004.jpg;

Thanks Kate

That is a lot of deaths in one month!

Wonder how it got into the enclosure.....if they have introduced wild caught animals recently?

The report from 2009/10 states the rays were wild caught and that was likely cause of how disease was introduced to enclosure back then.

Let me know if you want me to do anything.



Rosie Savoca

Senior Policy Officer, Exhibited Animals, Animal Biosecurity and Welfare Biosecurity Queensland

Department of Agriculture and Fisheries

T 07 3087 8028 M s.73 IrrelevF 07 3087 8328

E rosie.savoca@daf.qld.gov.au W www.daf.qld.gov.au

41 George Street, Brisbane Qld 4000

GPO Box 46, Brisbane Qld 4001

Disclosure Disclosure $\textbf{Exhibited Animal Applications:} \, \underline{exhibited animal applications @ daf. qld. gov. au }$

Exhibited Animal Enquires: exhibitedanimalenquiry@daf.qld.gov.au

Website Link: http://www.business.qld.gov.au/industry/agriculture/exhibiting-animals-queensland

From: SERAFIN Kate

Sent: Tuesday, 3 April 2018 4:49 PM

To: BUNCE Ashley < Ashley. Bunce@daf.qld.gov.au > Cc: SAVOCA Rosie <Rosie.Savoca@daf.qld.gov.au>

Subject: FW: Ray Reef

FYI – I have not contacted them yet.

I will also ensure they have contacted fisheries.

From: s.73 Irrelevant i mailto: s.73 Irrelevant i ovrtp.com.au]

Sent: Tuesday, 3 April 2018 3:14 PM

To: SERAFIN Kate Cc: s.73 Irreleva Subject: Ray Reef

Hi Kate

I am writing to inform you of a disease outbreak we have encountered in our Ray Reef exhibit here at Sea World over recent weeks.

Please see attached issues paper by our veterinarian s.73 Irrelevaoutlining the outbreak to date and our actions to try and halt the disease. I have also attached a copy of a paper published in 2017 following outbreaks of a similar nature in 2009 and 2010.

Please contact myself or s.73 Irreleva on s.73 Irreleva if you require additional information regarding this issue.

Kind regards,

s.73 Irrelevant in

Acting Head of Marine Sciences & Curator of Fishes | T: +61 7 s.73 Irrele F: +61 7 5588 2280 | M: s.73 Irrelevar

Sea World | Sea World Drive, Main Beach QLD 4217 | seaworld.com.au





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Date: 11/06/2018 5:37:54 PM From: "SERAFIN Kate" To: "SAVOCA Rosie" Cc: "RODGER Ian"

Subject: RE: Ray reef exhibit at sea world Attachment: image001.png;image002.png;

Thank you for ensuring they ceased activity Rosie – this was why I had so much concern.

See you tomorrow®

Kate

From: Exhibited Animals Enquiry Sent: Monday, 11 June 2018 12:24 PM

To: s.73 Irrelevant in

Cc: SERAFIN Kate; Exhibited Animals Enquiry; RODGER Ian

Subject: RE: Ray reef exhibit at sea world

Hi s.73 Irrele

Thank you again for emailing and calling regarding the estuary rays and a further mortality at the Ray Reef exhibit at Sea World.

As advised, can you please cease the public interaction and close the exhibit to the public for today.

Kate Serafin will contact you tomorrow to discuss further.

Thank you Rosie Savoca



Regards

Exhibited Animals
Biosecurity Queensland
Department of Agriculture and Fisheries

T 13 25 23 W <u>www.daf.qld.gov.au</u> 41 George Street, Brisbane Qld 4000

GPO Box 46, Brisbane Qld 4001

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Exhibited Animals Applications: exhibitedanimalapplications@daf.qld.gov.au

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----Original Message----

From: s.73 Irrelevant i [mailto s.73 Irrelevant i @vrtp.com.au]

Sent: Monday, 11 June 2018 9:17 AM

To: SERAFIN Kate < Kate. Serafin@daf.qld.gov.au >; Exhibited Animals Enquiry < ExhibAnimalEnq@daf.qld.gov.au >; SAVOCA Rosie

<<u>Rosie.Savoca@daf.qld.gov.au</u>>
Subject: Ray reef exhibit at sea world

Hi all

Kate asked I call if we had any further mortalities at our Ray reef exhibit here at Sea World. I have tried calling her mobile but left a message as there was no answer.

We have had an estuary ray die yesterday afternoon. This is the first animal mortality since we reopened the exhibit to the public.

Please advise if there is any action you wish for us to take?

Kind regards

s.73 Irrelevant ir

Acting Head of marine sciences

Sea World

Sent from my iPhone

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22-210 File A Page 69 of 78

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Date: 5/06/2018 4:45:08 PM From: "RODGER Ian"

To: "SERAFIN Kate", "SAVOCA Rosie"

Subject: RE: Sea world ray exhibit

Thanks Kate

lan Rodger Manager, Animal Welfare Policy Animal Biosecurity & Welfare Biosecurity Queensland

s.73 Irrelevant inf

From: SERAFIN Kate

Sent: Tuesday, 5 June 2018 4:44 PM

To: SAVOCA Rosie <Rosie.Savoca@daf.qld.gov.au>; RODGER lan <lan.Rodger@daf.qld.gov.au>

Subject: Sea world ray exhibit

FYI

Just spoke to s.73 Irr regarding a sea jelly exhibit.

We also discussed the ray exhibit & s.73 Irrehas advised they have not had a death going on six days. They have agreed to have a staff member stay at the exhibit during interaction to monitor behaviour and ensure the Rays are displaying normal behaviours.

Have advised to notify if there are any further illness/deaths and s.73 Irrehas agreed to also cease interaction if there are any negative behavioural

changes or of course illness and communicate with us regarding the period of time for cessation.

If communication occurs in my absence and it really cannot wait until Tuesday please take the above and all other aspects - animal welfare, increased immune deficiency & what may result as a potential further disease exposure due to bacteria on people's hands/water etc. etc. and discuss with each other our vets before providing advice. Note that so with each other our vets before providing advice. Note that so with each other our vets before providing advice. Note that so with each other our vets before providing advice. Note that so with each other our vets before providing advice. Note that so with each other our vets before providing advice. Note that so with each other our vets before providing advice. Note that so with each other our vets before providing advice. Note that so with each other our vets before providing advice. Note that so with each other our vets before providing advice. Note that so with each other our vets before providing advice. Note that so with each other our vets before providing advice. Note that so with each other our vets before providing advice. Note that so with each other our vets before providing advice. Note that so with each other our vets before providing advice. Note that so with each other our vets before providing advice. Note that so with each other our vets before providing advice. Note that so with each other our vets before providing advice. Note that so with each other our vets before providing advice. Note that so with each other our vets before providing advice.

Kate Serafin

Senior Policy Officer, Exhibited Animals Unit, Biosecurity Queensland Corporate

DAF

T: 07 3087 8024 M s.73 Irrelevant ir

F: 07 3087 8328 W: www.daf.qld.gov.au

E: kate.serafin@daf.qld.gov.au

E:exhibitedanimalenquiry@daf.qld.gov.au

Sent from my iPhone

Date: 4/04/2018 1:00:53 PM From: "SERAFIN Kate" To: "BUNCE Ashley"

Cc: "RODGER Ian", "SAVOCA Rosie"

Subject: RE: Seaworld Ray spp. outbreak - Streptococcus agalactiae Ray Reef Exhibit

Attachment: image002.png;image003.png;image004.jpg;

Thanks Allison

Excluding keepers, there has been no public contact with the rays.

Regards

Kate

From: BUNCE Ashley

Sent: Wednesday, 4 April 2018 12:55 PM

To: SERAFIN Kate

Cc: RODGER Ian; SAVOCA Rosie

Subject: FW: Seaworld Ray spp. outbreak - Streptococcus agalactiae Ray Reef Exhibit

FYI and advice

From: CROOK Allison

Sent: Wednesday, 4 April 2018 12:54 PM

To: BUNCE Ashley < Ashley.Bunce@daf.qld.gov.au >

Subject: RE: Seaworld Ray spp. outbreak - Streptococcus agalactiae Ray Reef Exhibit

Thanks for the update – can you confirm no public contact with the rays?

From: BUNCE Ashley

Sent: Wednesday, 4 April 2018 10:26 AM

To: CROOK Allison < Allison.Crook@daf.qld.gov.au >

Subject: FW: Seaworld Ray spp. outbreak - Streptococcus agalactiae Ray Reef Exhibit

FYI

From: SERAFIN Kate

Sent: Wednesday, 4 April 2018 10:24 AM

To: BUNCE Ashley < Ashley.Bunce@daf.qld.gov.au >; RODGER Ian < lan.Rodger@daf.qld.gov.au >

Cc: SAVOCA Rosie < Rosie.Savoca@daf.qld.gov.au >

Subject: Seaworld Ray spp. outbreak - Streptococcus agalactiae Ray Reef Exhibit

Seaworld Vet s.73 Irrelevant

Good morning Ash/lan

Just a quick update on the S. agalactiae ray outbreak at Seaworld after talking to s.73 I

- As per the email notification there has been an outbreak of Streptococcus agalactiae in the Seaworld Ray Reef exhibit with 26 mortalities over various ray spp. Predominantly Estuary rays however there were also other spp. held.
- Noting that there are very small distinctions between isolates during testing of wild caught populations I have asked s.73 if molecular characterization had been carried out or is it an assumption that the isolates are the same lineage sequence as the last outbreak?
- s.73 Irr as advised that they are assuming at this point in time but have carried out testing and are waiting on results.
- I have asked him if a targeted vaccine will be created if the results confirm a different serotype to the last outbreak the answer was yes and they shall continue annual vaccinations.
- When asked what the last vaccination program involved s.73 lr dvised it was a 2 x 4 week apart vaccination followed by annual vaccination if required (signs, symptoms).
- S.73 confirmed that the tank does filter the same water through Shark Bay water however they have large filtration systems and are running UV over the filtration lines s.73 has advised that other species were not affected last time either (prevalent in the rays rather than sharks etc.)
- All ray spp. have been taken out of the tank and placed in quarantine pools. The tank has been stripped down and is currently being treated.
- I questioned s.73 labout ray transfers and he has advised that they have not had an intake (from the wild) since the last outbreak and have ceased breeding the rays to ensure population control.

- s.73 Irrelso confirmed that they are not releasing any individuals into the wild given they have taken steps to ensure breeding does not occur.
- s.73 Inadvised that the park has contacted relevant people WH&S/Fisheries and even though the risk is low they are taking measures to ensure staff are protected.

I have asked s.73 to keep us in the loop and advise once tests are confirmed.

Regards

Kate



Kate Serafin Senior Policy Officer, Exhibited Animals Biosecurity Queensland Department of Agriculture and Fisheries

T 07 3087 8024 M s.73 | rreles | Eate.serafin@daf.qld.gov.au | W www.daf.qld.gov.au | Level 2, 41 George Street, Brisbane Qld 4000

GPO Box 46, Brisbane Qld 4001

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JAKO OS JAKO O Website Link: http://www.business.qld.gov.au/industry/agriculture/exhibiting-animals-queenslan

From: BUNCE Ashley

Government

Sent: Tuesday, 3 April 2018 6:44 PM

To: SERAFIN Kate Cc: SAVOCA Rosie Subject: Re: Ray Reef

Thanks Kate.

I will give you a call tomorrow.

Should Sea World also notify WHSQ?

Cheers, Ash

On 3 Apr 2018, at 4:48 pm, SERAFIN Kate < Kate.Serafin@daf.qld.gov.au> wrote:

FYI - I have not contacted them yet.

I will also ensure they have contacted fisheries.

From: s.73 Irrelevant in mailto: s.73 Irrelevant i @vrtp.com.au]

Sent: Tuesday, 3 April 2018 3:14 PM

To: SERAFIN Kate Cc: s.73 Irrelevan Subject: Ray Reef

Hi Kate

I am writing to inform you of a disease outbreak we have encountered in our Ray Reef exhibit here at Sea World over recent

Please see attached issues paper by our veterinarian s.73 Irreleval outlining the outbreak to date and our actions to try and halt the disease. I have also attached a copy of a paper published in 2017 following outbreaks of a similar nature in 2009 and 2010.

Please contact myself or s.73 Irreleva on s.73 Irrelevar f you require additional information regarding this issue.

Kind regards,

s.73 Irrelevant inf

Acting Head of Marine Sciences & Curator of Fishes | T: +61 7 5588 2480 | F: +61 7 5588 2280 | M: s.73 Irrelevan

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<ISSUE PAPER RE RECENT DEATHS IN STINGRAYS AT SEA WORLD 2018.doc> Published of Principles

<Bowater et al-2017-Journal of Fish Diseases.pdf>

Date: 11/06/2018 12:21:40 PM From: "RODGER Ian"

To: "SAVOCA Rosie", "SERAFIN Kate"

Cc: "Exhibited Animals Enquiry"

Subject: RE: Ray reef exhibit at sea world Attachment: image001.png;image002.png;

Thanks Rosie

Ian Rodger

Manager, Animal Welfare Policy Animal Biosecurity & Welfare **Biosecurity Queensland**

s.73 Irrelevant

From: SAVOCA Rosie

Sent: Monday, 11 June 2018 12:14 PM

To: SERAFIN Kate <Kate.Serafin@daf.qld.gov.au>; RODGER Ian <Ian.Rodger@daf.qld.gov.au>

Cc: Exhibited Animals Enquiry < ExhibAnimalEnq@daf.qld.gov.au>

Subject: RE: Ray reef exhibit at sea world

Hi Kate and Ian

Spoke to \$5.73 lrre his morning regarding below email.

The estuary ray that died yesterday had been vaccinated, and an autopsy will be undertaken today.

I advised \$.73 Irre after speaking to Ian) to stop all public interactions and to close exhibit to the public.

s.73 Irrewas fine with this but did question why the exhibit had to be closed to the public as the disease is not transmittable to humans (as advised by vet 8.73 Irand research papers).

I advised \$.73 Irr that if she could close it for today and Kate will give her a call tomorrow morning to advise further.

s.73 Irreasked if Kate could please call her before 9.30am as that is time they open to the public.

did also advise that vet s.73 Ir thought it would be good to speak to a BQ vet regarding the matter. I advised her that this could be a possibility if they wanted and to raise it with Kate tomorrow.

Ill email s.73 Imback to have it in writing to stop interactions and close exhibit today.

Thanks



Government

Rosie Savoca

Senior Policy Officer, Exhibited Animals, Animal Biosecurity and Welfare

Biosecurity Queensland

Department of Agriculture and Fisheries

T 07 3087 8028 M S.73 Irrelev F 07 3087 8328

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----Original Message----

From: s.73 Irrelevant [mailto s.73 Irrelevant in vrtp.com.au]

Sent: Monday, 11 June 2018 9:17 AM

To: SERAFIN Kate < Kate. Serafin@daf.qld.gov.au >; Exhibited Animals Enquiry < ExhibAnimalEnq@daf.qld.gov.au >; SAVOCA Rosie

<Rosie.Savoca@daf.qld.gov.au> Subject: Ray reef exhibit at sea world

Hi all

Kate asked I call if we had any further mortalities at our Ray reef exhibit here at Sea World. I have tried calling her mobile but left a message as there was no answer.

We have had an estuary ray die yesterday afternoon. This is the first animal mortality since we reopened the exhibit to the public.

Please advise if there is any action you wish for us to take?

Kind regards

s.73 Irrelevant info

Acting Head of marine sciences

Sea World

Sent from my iPhone

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Date: 30/07/2018 2:21:02 PM From: s.73 Irrelevant info To: "SERAFIN Kate"

Cc: "SAVOCA Rosie", "RODGER Ian", |s.73|

s.73 Irrelevant

Subject: RE: Ray Exhibit

Hi Kate

Just keeping you up to date on our Ray disease outbreak here at Sea World.

The last animal to die in the is exhibit was on the 19th June and all animals surviving have returned to normal behaviour and appetence over the past month. We are intending to resume the public feeding from this Saturday.

Any concerns please contact me..

Kind regards

s.73 Irrelevant i

Acting Head of Marine Sciences | T: +61 7 5588 2480 | F: +61 7 5588 2280 | M

s.73 Irreleva

Sea World | Sea World Drive, Main Beach, QLD 4217 | www.themeparks.com.au

From: s.73 Irrelevan

Sent: Tuesday, 19 June 2018 12:36 PM

To: SERAFIN Kate

Cc: SAVOCA Rosie; RODGER Ian; s.73 Irrelev

Subject: Re: Ray Exhibit

Hi Kate

There has been another mortality at Ray Reef. This was an estuary ray. We will be doing the post mortem this afternoon to determine cause of death. The last ray that died did not die from Steptococcus. There were unidentified parasite eggs/cysts on the gills causing inflammation.

We had removed todays animal from the exhibit this morning due to lethargy and were holding it in an off exhibit tank.

I will notify you of the cause of death once we know what it is

Thanks

s.73 Irrel

Sent from my iPhone

On 12 Jun 2018, at 7:05 pm, SERAFIN Kate <Kate.Serafin@daf.gld.gov.au> wrote:

Many thanks s.73 Irre

Regards

Kate

From: s.73 Irrelevant information @vrtp.com.au>

Sent: Tuesday, 12 June 2018 9:52 AM

To: SERAFIN Kate

Cc: SAVOCA Rosie; RODGER Ian; s.73 Irrelevan

Subject: RE: Ray Exhibit

Hi Kate.

Animal welfare is also our first priority and following discussions with our vet and curator, we are going to operate the exhibit with an Animal Care Team Member and a Guest Services Team Member present to control guest interactions with the Rays. Please rest assured, should we identify any animal behavioural concerns, we will close the exhibit.

I can also confirm we are not offering public feeding and will advise your office of our plans prior to recommencing.

Thanks and please give me a call if you have any questions.

Regards

s.73 Irrelevant

From: SERAFIN Kate [mailto:Kate.Serafin@daf.qld.gov.au]

Sent: Tuesday, 12 June 2018 8:24 AM

To s.73 Irrelevant

Cc: SAVOCA Rosie; RODGER Ian

Subject: Ray Exhibit

Hi s.73 Irre

As discussed this morning our recommendation for ceasing public interaction activities within the ray exhibit was based on animal welfare concerns.

Thank you for ensuring that at this point in time there is no public feeding opportunities. We do recommend that this continues.

Please keep us updated with regards to any further deaths.

Regards Kate

<image002.png>Kate Serafin

Senior Policy Officer, Exhibited Animals Biosecurity Queensland Department of Agriculture and Fisheries

T 07 3087 8024 M s.73 Irrelev E kate.serafin@daf.qld.gov.au W www.daf.qld.gov.au Level 2, 41 George Street, Brisbane Qld 4000

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