

Chairperson's note: The following document by Professor Emeritus Michael Douglas is the first of a planned series on opportunities and experiences in outreach and education of the public (writ large) on the geography of life.

IBS Cruise ship lecturing possibilities

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Summary:

- the popularity of cruises that visit far reaches of the planet's ocean's and other bodies of water offer excellent opportunities for outreach and educating the public on the fascinating patterns in the geography of life.
- cruises provide their passengers with a variety of resources and entertainment, but often the educational components of their experiences fail to offer but a vague appreciation for the diversity of life and how it varies across the planet.
- there thus exists a great opportunity for biogeographers to fill this gap and develop a series of onboard education and outreach activities to enrich the experiences of passengers interested in the natural world.
- Following his recent experiences as an onboard educator, Professor Emeritus Douglas has developed a summary and set of strategies for optimizing cruise ship lecturing and outreach on the geography of life. The strategies, in brief include –

What makes a successful lecturer on natural history and the geography of life?

- a) **Understand your audience.**
- b) **Evaluate your audience at the outset of your first talk.**
- c) **Manage your pace of speaking.**
- d) **Unforced humor is appreciated by the audience.**
- e) **Consider putting up a first slide with important content, a rhetorical question, or some humor.**
- f) **Make sure your slides are readable and simple enough for non-technical people to understand.**
- g) **Ask rhetorical questions – but don't wait long expecting an answer.**
- h) **Do not exceed the 45-minute time limit!**
- i) **There is usually no time for questions from the audience.**
- j) **Recommended reading: *TED Talks* by Chris Anderson.**

The optimal approach to onboard lectures on natural history and the geography of life may vary, but can follow a pedagogical template that includes -

- 1) **A summary of the previous port's highlights, pointing out novel natural history aspects and then showing photos and asking provocative questions to the audience.**
- 2) **After about 5-10 minutes, begin the more formal section of the talk, discussing key geo-natural history aspects, perhaps using google earth and other visual resources.**
- 3) **BIOGEOGRAPHY as a Rosetta stone – tying it all together: this message should be made explicit in the final summary. The wonderful but sometimes dizzying diversity of life we experience while travelling is the realm of the science of Biogeography.**
Different places are inhabited by different species because they evolve there; larger islands and bodies of water, and those closer to the Equator have more species because the wheels of evolution churn fastest in these paces, ...

Motivation for this document

Somewhere around 30 million passengers will take an ocean cruise this year. (Some are multiple cruisers, so the number of “unique” cruisers is somewhat less). The mostly mature audience of some cruise lines ensures that audiences will have the maturity to appreciate educational talks on various subjects. A lecturer can reach from 200-500 passengers during a talk. Given that there may be several hundred cruise segments carried out per year by the larger cruise lines, there are excellent opportunities for reaching on the order of 40 to 100 thousand passengers per year with environmental talks.

In my recent cruises, I was surprised at the number of people who came up to me and, not only said they really liked my talks, but confided that such talks by speakers were usually the highlight of their onboard activities. They then often lamented that many of their cruises didn’t have speakers.

This document summarizes some of the aspects of cruise ship operation, what is involved in being a cruise ship speaker, and what some possibilities might be for the IBS to be involved in outreach to cruise ship audiences.

Background to cruising and cruise ship constraints

Cruise ships offer convenient and relatively painless mode of travel to many world destinations without the need to pack and repack your suitcase daily. Free, unlimited food is provided three to 4 times daily at cafes, cafeterias and a variety of restaurants, often with free room service at any time. There are a handful of higher-end shops, spas, gyms, and several pools. Music is available at a variety of venues and evening performances occur on many. A handful of bars and lounges are scattered around the ship, and casinos are typically open at most hours for those who want to gamble.

Port visits involve either docking at a wharf where passengers disembark at their convenience for the day or, when visiting small ports without docking facilities, the passengers go ashore via the ship’s lifeboats (a process “termed “tendering”). Usually, 4 boats are required to continuously shuttle people ashore while the ship remains stationary in deep water. The ship uses dynamic positioning (4 GPS antennas on the ship) to maintain its orientation and position precisely using its azipods. No rudders operate on modern cruise ships; rather the propellers can turn 360 degrees to control the ship’s motion.

The business of cruise ship travel

Cruise ships travel where they can fill their ships with passengers. There are many cruise line companies that try to fill particular niches for the cruising public. A quick overview follows.

Expedition ships: These are small ships that focus on short cruises in specific locations. They are known for putting their passengers ashore on zodiacs and reaching smaller ports than those served by larger ships. They usually have dedicated naturalists or other lecturers who provide a variety of talks, albeit often on relatively limited subjects (e.g., interesting facts on but a few charismatic species). They typically lack major entertainment activities (night clubs, casinos, musical groups) since they don't have venues for such activities. Expedition ships are roughly about three-times the daily cost for passengers when compared with larger cruise ships.

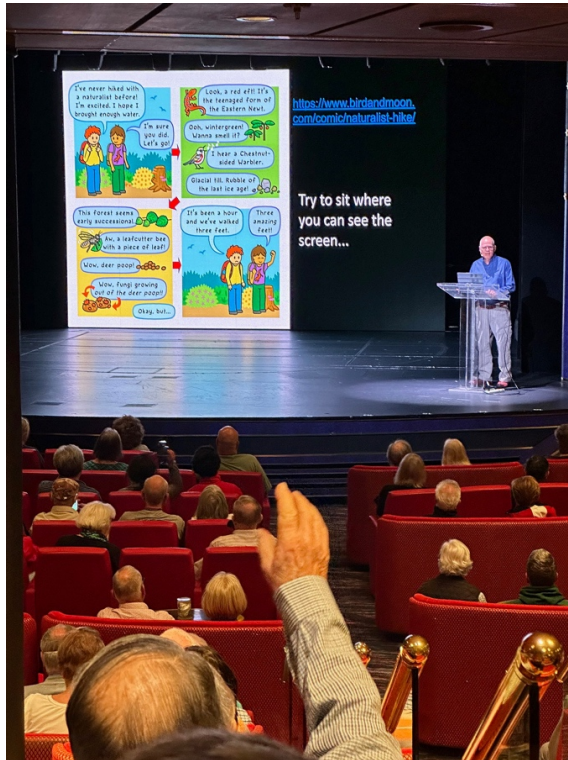
Mid-size cruise ships: Typified by ships of the major cruise lines, which has ships from about 1500 to 3000 passenger capacity. Smaller ships in this category are used for "exotic voyages" to many countries or around the World, presumably because they are easier to fill.

Large/ Mega cruise ships: These ships, from 3000 to more than 6000 passengers, mostly focus on onboard entertainment rather than their destinations. All ages are usually encouraged. Most cruises, commonly of one week in duration, often start near major population centers to encourage the maximum number of 1-week cruisers. Such ships offer the most entertainment options, but usually do not offer lectures.

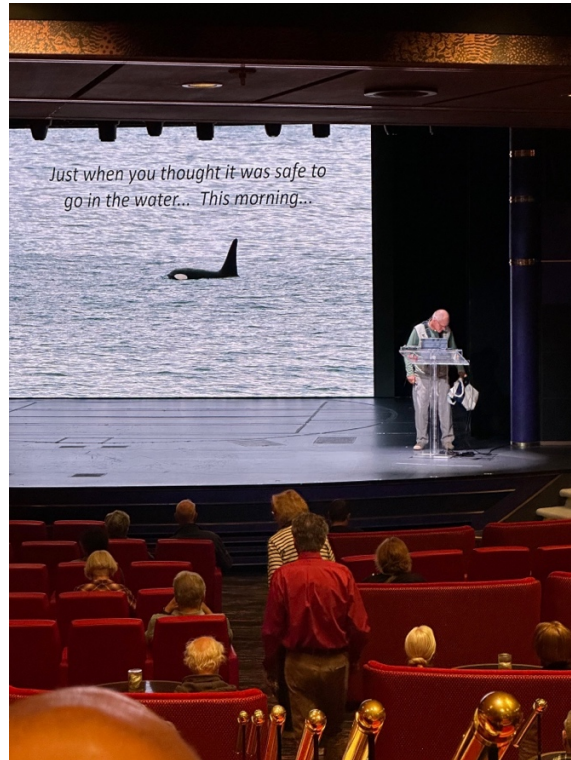
Most cruise ships use English as their operational language. Americans are the dominant cruisers, but many other nationalities are represented depending on the cruise's origin. Cruise lines are operated as a business that must, in the long-term, make a profit. They lost much income during COVID and are in the process of recovering this with additional charges and economizing measures. Most of the venues aboard the ship are intended to earn additional income from the passengers. Spa's, specialty restaurants, the shops, bars and the casino all are intended to earn additional income. Even shore excursions, done in conjunction with reliable onshore tour operators, may be more expensive when done through the ship than similar tours booked independently. However, when tours are booked through the ship there is the guarantee that the ship will wait for the tour to return, unlike non-ship affiliated tours.

To a certain degree, lecturers are a potential loss to a cruise line. If the lecturer draws people away from venues that generate a net income, then having popular lecturers aboard a ship will cost the cruise line income. But if the ship is running at less than full capacity, then a cruise line's reputation for having good lecturers can potentially encourage more passengers to book a cruise – a net gain for the cruise line. What senior management of the cruise line thinks of all of this is unknown. It very much depends on the clientele the line is aiming at. Many of the more seasoned cruisers are more mature and appreciate useful and interesting talks on the local wildlife.

Fig 1. A) putting a complex slide before you start your talk can allow the audience to have time to read it, B) mild attempt at humor.... just be sure that you audience is of a suitable generation to appreciate it, C) different ships have different “Main Stage” seating arrangements. Most are optimized for entertainers, not seeing a digital screen.



A.



B.



C.

Fig 2. Be sure your text is visible from the back of the room. It can be a long way.



Cruise lines are very aware of entertainment costs and whether entertainers are a valuable addition to a ship's activities. The ship's Entertainment Director (distinct from the more public "Cruise and Travel Director" - who is usually younger and not a formal crew member) monitors attendance and receives passenger comments related to entertainment. At the end of every cruise, the passengers receive a detailed online questionnaire asking specifics about their experience with "Entertainment" – which will include educational and outreach experiences.

The main venues on most ships are usually booked throughout the day and evening. They may seat from less than 100 to over 1000 people depending on the ship size. However, on some ships the stage was clearly designed for entertainers like solo artists or dancers, and the screen behind them is partially blocked from many seats. The newer, larger ships often include digital wrap-around screens, which allow for good visibility from most seats.

Color reproduction on the digital screens is excellent and much better than older-style laptop projector displays. Very detailed images cannot be displayed at greater than, I estimate, about 1280 to 1680 pixels across.

Audio support is provided by one to several technicians, either behind the curtains on stage or up in the projection booth behind the audience. In my recent experiences, this was essential to wire-up the speakers, make sure the PowerPoint was working, and check the audio level. I used a podium for occasionally steadying myself (the front of the ship does pitch and roll at times), and to set down my laser pointer, slider advancer and watch (surprisingly there is no large clock in the room to judge the time). Most laser pointers are not visible when used against a digital screen, but I bring green lasers commonly used for pointing out features in the night sky that are much brighter and visible by the audience.

Despite the careful monitoring of entertainers and lectures, I have yet to receive any formal feedback from the cruise line on my talks. Individual Entertainment Directors have commented on how people like the talks, but the key measure is in repeat customers – how many people continue to come to your talks after hearing your first one? A second, personally valuable, measure of your success, is comments from the passengers. On each of my recent cruises, I received many such comments. However, this is a biased sample since at most only 25% of the passengers on the ship can fit into the arena where I presented lectures. Entertainers usually have two time slots for their performances to accommodate more passengers.

Lecturers are usually given a time slot for their talks at either late morning or early afternoon so as not to conflict with peak times for meals and for major entertainer performances, which usually occur after dinner.

Small room venues exist – there are two or three such rooms that are available for scheduling throughout the day, and they were usually unoccupied. They can seat about 30-50 people and have good audiovisual screens. They might be useful for smaller specialized meetings and follow-up discussion for those attending talks.

Renumeration for lecturers

Lecturers can be paid, or not paid, depending on the arrangement. I made my own contact with the cruise line I served, and have remained a lecturer via personal email contact with their director of entertainment. The offer was that the cruise line paid travel costs (between home airport and boarding the ship) for myself and one accompanying person (often a spouse), food (not specialty restaurants) and a room with a window (often blocked by a lifeboat). The agreement also included free laundry, and reduced internet rates (\$20 a week instead of something like \$15 *a day* for passengers). Small discounts were also offered on port excursions, and half price discounts offered on soft drinks and such.

Some months after my first cruise, I was contacted by an agent who offered to find cruises for me. In their arrangement model, they paid the speaker something like \$150 per day. For a single speaker this might in effect become a small salary. However, they would not pay transportation costs for the accompanying guest – in effect negating the speaking fee for distant cruises (A US to Australia flight might cost \$2000.). In addition, the income becomes a possible tax complication.

For professional entertainers who must obtain an income, having an agent is probably a necessity. There are many travel and immigration complications to joining ships in mid-cruise and one would need to do this *all the time* to be employed enough (unless you are a high-dollar act).

Problems with many cruise itineraries

An ideal cruise itinerary might be one where a sea-day occurred between every port visit. This way a talk could precede the port visit and prepare the passengers for what to expect prior to their arrival. Such itineraries are relatively rare.

A strong constraint on many cruises is the requirement that passengers must complete an entire cruise within a one-week period. Many cruises start on a Sunday, allowing passengers to travel to the cruise departure port on Saturday. The cruise then returns the following Saturday. These cruises are aimed at those still working and able to take only one week off. Caribbean Sea cruises or those to Alaska often fall into this category. Cruises to locations farther from the US are often longer than 7 days because they are aimed at cruisers who have more time available.

Many cruise ships repeat similar cruises throughout the season. For example, in 2023-4 the Oosterdam of Holland America goes between Buenos Aires and Santiago (the nearby port actually) six times during the Antarctic season from December to March. It then returns to north of the Equator. Similar strategies exist with the very popular Alaskan cruises.

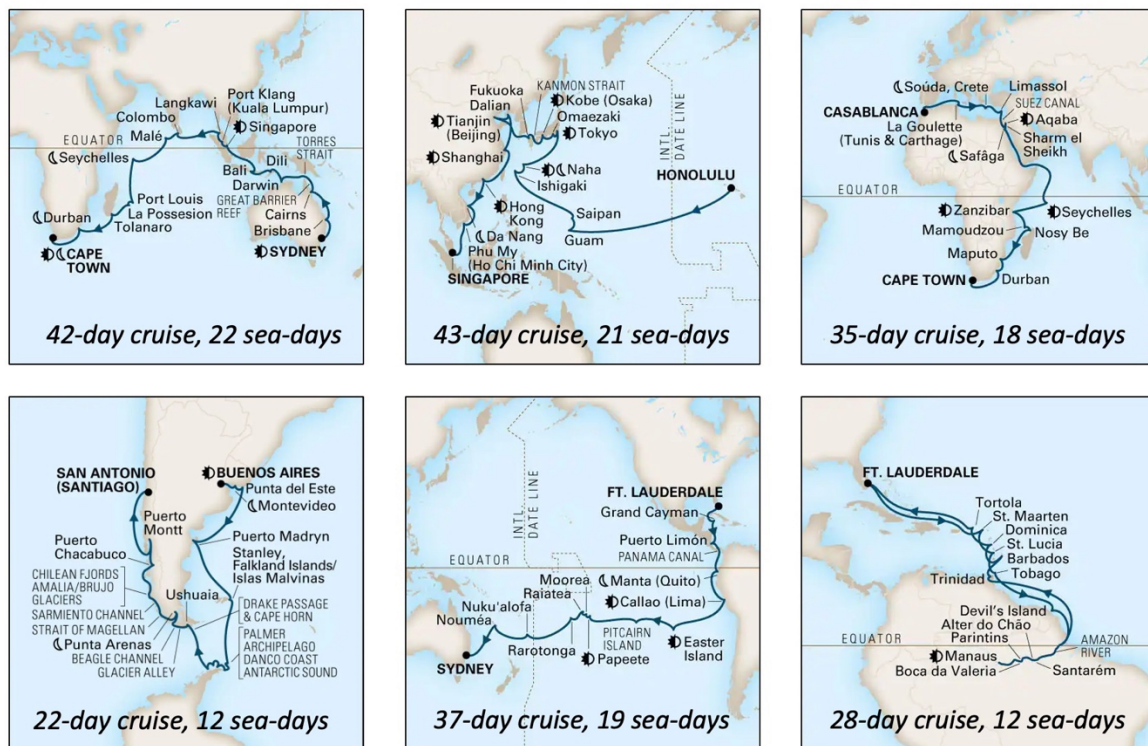


Fig. 3. The figure above shows a sampling of longer cruise segments that involve a relatively large number of sea-days. What type of talks would be suitable for each of these cruise segments?

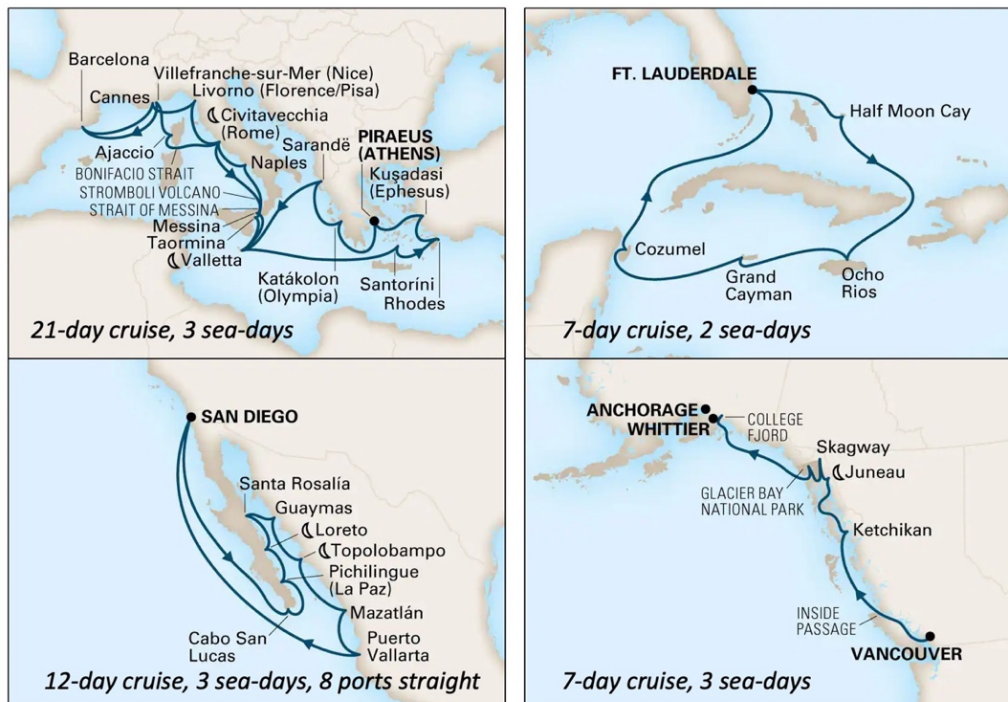


Fig. 4. The cruises above illustrate cruises with relatively few sea-days. The 21-day Mediterranean cruise (upper left) has only 3 sea-days, the same as a 7-day Alaska cruise (lower right). A typical Caribbean cruise (upper right) of one week duration has only a couple of sea-days for talks. The west coast of Mexico cruise visits 8 ports in succession with no intervening sea-day!

The Need for lecturers

Not all ships need lecturers. Many short cruises, typically ones to Alaska, the Caribbean Sea region, or the Mediterranean, have few “sea-days” (Fig. 4.). Currently, entertainers have higher priority than lecturers, and during a port day the main arena/theater will have evening entertainment by formal entertainers. This leads to some issues that I discuss later.

Requirements for cruise ship lecturers

There doesn’t seem to be formal requirements for lecturers. The few we know have PhD’s in some field, but it appears that many go through agents, like most entertainers. The agents find the lecturing opportunities through their contacts with various cruise lines.

There is a code of behavior for lecturers, which is the same as for shipboard entertainers. Proper dress, no improper behavior with passengers or other crew members, and a handful of mostly common-sense requirements are typically observed. Cruise line companies can examine your personal Facebook pages for improper comments, and you should not overtly be critical of the cruise line’s activities. After you understand how cruise lines function and what they are trying to do, you will tend to be sympathetic to their situation. Business constraints are everywhere. A lecturer showing flexibility and understanding of the various constraints is greatly appreciated.

What makes a successful lecturer on natural history and the geography of life?

I have only listened to one lecturer other than myself while on a cruise. Thus, everything I say here will be biased. But passenger feedback (or the lack of it) can give clues.

- a) **Understand your audience.** Perhaps half of your audience are passengers that are simply accompanying their spouse who has an interest in your talk. You should try to reach the less-interested members of your audience! It would be easy for a scientist to lecture on a small expedition ship filled with naturalists. It is more challenging, but probably more rewarding, to lecture to a large audience that you have the chance to turn towards natural history as an interest – if not a passion for their remaining years.
- b) **Evaluate your audience at the outset of your first talk.** How many of you are Australians? How many Americans? How many from any other country? Knowing this can help you adjust your future talks to better fit the audience.
- c) **Manage your pace of speaking.** Attention spans are short for most cruisers. Move with your material. Minimize complicated slides. Speaking too fast or too slow is a problem. Remember that many cruisers may have English as their second language. Be clear. Minimize idiomatic expressions. Read the book *TED Talks* for general speaking guidance.
- d) **Unforced humor is appreciated by the audience.** Don't take yourself too seriously. But avoid telling jokes intentionally.
- e) **Consider putting up a first slide with important content, a rhetorical question, or some humor.** Your first slide will be up the longest – while everyone comes into the room and finds a seat.
- f) **Make sure your slides are readable and simple enough for non-technical people to understand.**
- g) **Ask rhetorical questions – but don't wait long expecting an answer.** At other times, prompt the audience with thought-provoking questions, and be flexible and expect some surprising responses.
- h) **Do not exceed the 45-minute time limit!** Time is needed to prepare the room for the next user – often a practice session for the evening performers.
- i) **There is usually no time for questions from the audience,** as this would require a microphone to be passed around the audience – this is impractical for a large auditorium. Best to plan to use your time for your presentation and answer any rhetorical questions you might pose.
- j) **Recommended reading: *TED Talks* by Chris Anderson.** TED has an 18-minute limit but the basic concepts of public speaking are valid for talks of any length.

After the first talk on a cruise, I tend to evolve into a format as follows.

- 1) **I first summarize the previous port's highlights** (from my perspective). I **point out novel natural history aspects** that many cruisers might have missed. I **show some of my photos and ask provocative questions** to the audience. Did they see these?
- 2) **After about 5-10 minutes I begin my "formal" talk material.** This goes until the end of my time if there is no port visit the next day. If there is, I discuss the key natural aspects of the upcoming port. I show Google Earth imagery to indicate where we will dock (or tender) and give the audience the "lay of the land". While there are usually formal talks about each port given by the cruise and travel director and there may be a short video summary available on the ship's TV, these typically don't focus on the natural history aspects of the destination.
- 3) **BIOGEOGRAPHY as a Rosetta stone – tying it all together:** this message, if not obvious and woven through the talks, should be made explicit in the final summary. The wonderful but sometimes dizzying diversity of life we experience while travelling is the realm of the science of Biogeography. Different places are inhabited by different species because they evolve there; larger islands and bodies of water, and those closer to the Equator have more species because the wheels of evolution churn fastest in these paces, ...

I have found that the above format seems to keep the attention of the audience better than a 45-minute single-subject talk. When there are multiple sea-days in succession a full-length is more suitable.

A possible longer-term problem is maintaining enough diversity in the talk material so that frequent cruisers don't see repeat lectures. This could eventually become a problem if the same lectures, without modification, were used repeatedly by different speakers. This is unlikely to become an immediate problem, but speakers should be aware that there are many cruisers who cruise *very frequently* and they may eventually tire of carbon-copy repeat performances.

Remaining flexible to changes

There is another detail that lecturers should be aware of. They must remain flexible to schedule changes. I prepared talks for 8 sea-days during a recent trans-Atlantic cruise to Spain, but because the entertainment personnel felt the need to show some of their advertising and other productions in key time slots my talks were eventually reduced to only five. This might be considered a good outcome (by some) but it is also possible that if port visits are canceled to bad weather (the pilot access or tender operation are subject to rough seas) extra sea-days may occur. A speaker needs to come prepared for more talks than they are scheduled to give.

Availability outside lecture times

Cruise lecturers should be available to the cruisers frequently, such as in the Lido during eating hours, on the Promenade looking for sea-life, or in the Crow's Nest (or Exploration Central) from time to time. People will recognize you and seek out your views or opinions on various subjects. Being a lecturer brings instant celebrity status that will surprise the first-time lecturer. Of course, not everyone will recognize you since only a certain fraction of the ship will have attended your talks.

Possibilities beyond formal talks

Astronomy is always an interesting topic for cruises. At least we have been told that. Some cruises have the opportunity for evening astronomy sessions. Others won't be suitable (arctic summer cruises where there is little darkness or cruises that are too cold to spend much time outside). The southern hemisphere night sky will be unfamiliar to many cruisers who live in the northern hemisphere. If you have the knowledge, and if conditions are suitable during your cruise, don't hesitate to go off to do one or more. All you need is knowledge, a green laser pointer, and some skills at entertaining.

Possible IBS needs and strategies for effective outreach on cruise ships

The goal of the IBS should be to interest *everyone* in the subject of biogeography – the explanation of how life varies from place to place and why. Biogeography overlaps to a large degree with an interest in natural history, but provides grand explanations for variation in the natural world. We tend to focus on college-age students as our audience, but a great many mature adults will find much of the material of interest. Cruise ships offer a captive audience that is often bored with routine entertainers or rerun movies. And they desperately seek more information about the ports of call than can be provided by the ship's staff presentations – which tend to focus on selling excursions and standard commercial attractions in the port.

To reach the widest possible audience on a cruise ship there are many possibilities:

- 1) **Provide lectures on sea days, as discussed above.** These can reach no more than 25% of the passengers due to room size constraints and available time slots, but this may number into the hundreds depending on the size of the ship.
- 2) **Develop material (videos or narrated slide shows) for the in-house TV channel available in each stateroom.** People unable to attend a talk can then view material at their leisure. This would be especially effective for days when there are multiple port visits in succession. A summary of the plants and wildlife of upcoming port could then be seen the evening before arrival – and this needn't conflict with entertainers on the major performances. Such material would need to be prepared prior to the cruise.
- 3) **Develop, in conjunction with tourism personnel in key ports of call, specific natural history – oriented tours that would be specialized for the cruise ship participants.** A member of the cruise ship would help guide the tour group. Ideally, a local university should be involved with such tours to enhance their environmental tourism expertise.

- 4) **Ensure that ships libraries, when available, have a suitable mix of natural history, environmental education, and biogeography-related books and guides.** Ships on particular cruise lines are re-establishing their libraries (they had been removed a few years ago). Passengers can purchase them, though having enough copies of high-demand texts would be challenging and would require some sort of Kindle or other e-reader versions.
- 5) **Consider offering specialized talks in one of the smaller rooms (capacity 50) during a cruise - for a possible fee.** This might be enough to offset the cost of the specialized speaker and their food and lodging costs. There are already drink, internet and other packages offered now for cruisers – why not an educational package? There are probably enough cruisers willing to support an “*enhanced educational package*”. This is something that could be proposed as a trial activity. One major cruise line is already advertising its quality guest lecturer program; this might be something that passengers could sign up for when joining the ship.

There is an important potential benefit to smaller group lectures. Most cruises to the Mediterranean, Caribbean, and Alaska have few sea-days and thus few opportunities for conventional daytime lectures. A small-room venue with specialized even lectures during port days could be effective in preparing passengers for the following day’s port visit. Obviously, only a small percentage of passengers would benefit from this information. I may thus be more effective to eliminate the evening entertainment to cover the following day’s possibilities.

Stretching the possibilities even further, one could propose that even on successive port days a lecturer could provide shorter talks, perhaps 30 minutes, between the evening entertainment times (typically 7 and 9 PM). This way even cruises that have few sea-days could have *natural history/geography of life* lectures (or other lectures, depending on the itinerary of the ship).

There is an even more encompassing possibility – that might be appealing to younger IBS members. Why not propose a dedicated “science officer” (or geo-naturalist) aboard the cruise ships that are paid employees (multi-month contract). This would enable many more IBS-inclined members to participate in the lecturing program. But to justify such a program to the cruise line would likely require that the naturalist do more than most lecturers currently do. Astronomy sessions at night, specialized workshops for smaller groups, and port-day evening talks come to mind. The cruise line could then advertise such naturalists as a positive aspect of booking their cruises. It may not appeal to every cruiser, but it probably would attract more than some of the other activities advertised by cruise lines for their ships.

- 6) **Potential cruise ship lecturers may obtain a “letter of certification” from the IBS.** I suspect that this would require participation in a short course to familiarize potential lecturers with the overall cruise experience, what is expected of them, what kinds of materials and presentations might work best, and so forth. Just how to develop material

for such a certification program and where (IBS Biennial meeting?) or how (virtual?) to present it should be an IBS topic of conversation. Such certification processes exist in various scientific fields and, for example, are requirements for nature [guiding](#) in many game reserves in southern Africa.

Some final thoughts for the IBS community

Should it be the IBS's responsibility to promote cruise ship lecturing? Why not some other large scientific society? Biogeography *can* serve as the framework for all geo-natural history talks because life on earth depends on every aspect of the natural world and how it varies from place to place. As an international scientific society, the IBS would lend credibility to outreach and education on the diversity and geography of life, and the cruise line would be able to advertise the material to its passengers as an enriching program and set of resources.