



May 7, 2004

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[Mister Chairman](#)

The Endangered Species Act is thirty years old and the Chairman of the House Resources Committee, Congressman Richard Pombo, a rancher from California, wants to make changes that he says will make the act more effective. He explains how it will all work to host Bruce Gellerman. (12:47)

[Fish Food](#)

These days, flavor isn't the only thing restaurants need to consider when it comes to fish. Ocean pollution and over-fishing have turned some of the most popular dishes into delicacies, or in some cases, health hazards. Roger Berkowitz, president of the restaurant chain Legal Seafoods, takes us on a tour of his fish factory and lab, where every fish needs to pass inspection before making it to the platter. (7:00)

[Mercury Rising / Jeff Young](#)

A flood of public comments pushed the Environmental Protection Agency to review its new rule to cut mercury emissions from power plants. Jeff Young reports the rule's critics—including some former EPA staffers—say the agency should take another look at technology that could make deeper, faster, mercury cuts. (6:30)

[Uganda's Mushroom Mogul](#)

Host Bruce Gellerman visits with a woman in Uganda who is making it her up-and-coming business to grow oyster mushrooms – with a little help from homemade solar dryers. (3:10)

[A Mother's Hold / Jennifer Chu](#)

Living on Earth's Jennifer Chu reports on a crucial bond between a mother dolphin and her calf. (1:20)

[Moving the Dream to the Road / Ingrid Lobet](#)

When California regulators required carmakers to build zero-emissions electric cars, the cars were a commercial failure. But the rules spurred a range of super-clean cars that are now turning up in showrooms, and not just in California. (15:30)

This week's EarthEar selection

an earth-conscious beauty company committed to preserving natural resources and finding more sustainable ways of doing business. Information available at [Aveda dot com](http://Aveda.com); The Noyce Foundation, dedicated to improving Math and Science instruction from kindergarten through grade 12; The Annenberg Foundation; and, The Kellogg Foundation, helping people help themselves by investing in individuals, their families, and their communities. On the web at wkkf.org. This is NPR – National Public Radio



MOVING THE DREAM TO THE ROAD

GELLERMAN: It's Living On Earth. I'm Bruce Gellerman.

So, how many miles a gallon does your car get? With gas prices soaring, high mpg's have become the new status symbol...and if you want to wait a few decades carmakers say hydrogen powered vehicles will have you passing the Joneses, without pollution. But if you can't wait? Well, as Living on Earth's Ingrid Lobet reports, auto-makers have already developed dozens of new clean cars that will leave you're polluting neighbors in the dust.

(Loudspeaker at car dealership: Beep. Mrs. Gomez, your Corolla is ready in service. Mrs. Gomez, please see the cashier.)

LOBET: You can't talk about today's clean cars without acknowledging one 50- mile per gallon car that's becoming almost common on the roads in California and Florida, though you might not see many yet in Boise or Milwaukee. It's the gasoline-hybrid Toyota Prius.

ABRAMS: I'm Chris Abrams. The general sales manager of Hollywood Toyota. In Hollywood, on Hollywood.

LOBET: Chris Abrams has been watching the Prius become chic.

ABRAMS: Well Toyota of Hollywood is lucky to be in a demographic that makes us the number one hybrid electric dealer in the nation. We have Leonardo DiCaprio, Brad Pitt, Tom Hanks, Tony Shalhoub, Lucy Liu, Cameron Diaz...

LOBET: Abram's problem, in fact, is supply. Other dealers around the country have the same problem. They can't lay their hands on enough Priuses. The Toyota factory hasn't been able to keep up.

[FROM CAR LOT]

LOBET: So that's why I don't see many on the lot.

ABRAMS: No, no you don't. And the ones you do see are sold. If a truck pulled up right now and there were 200 Priuses, 300 Priuses on it, it would maybe fill the orders I have now...maybe.

LOBET: So if you don't mind waiting four months, the Prius is one nearly zero-emissions possibility and some 76 thousand Americans have bought them. Another 41 thousand have bought the Honda Civic hybrid. And about 12 thousand are zipping around in the sleek hybrid Honda Insight. That one's only a two-seater, so the appeal is limited. But you'll soon have many more than just these 3 hybrid choices.

Later this year there will be two new sedans in hybrid form: the

Honda Accord and Nissan Altima. If you're looking for a pickup -- the Chevy Silverado and Equinox should be out later this year too.

But carmakers hope hybrid sales will jump out of the tens of thousands and into the hundreds of thousands when hybrid SUVs arrive...

[HIP HOP GROOVE, SOUND OF FORD COMMERCIAL]

LOBET: ...like the new hybrid Ford Escape featured in this internet ad. A hybrid version of the Toyota Highlander SUV will be out in early 2005. And if Toyota is just a little down-market for your taste...



The Ford Focus PZEV, like all "PZEVs", emits less than 1 lb. of smog-forming pollutants in 15,000 miles. (Credit: AIC-Automotive Information Center)

[STARRY MUSIC FROM LEXUS COMMERCIAL]

LOBET: Lexus is rolling out the first luxury hybrid SUV, and it won't even be marketed as a green car. Why emphasize miles per gallon, and global warming when you can talk about power and speed instead? This is the candid way Lexus puts it in an early ad for the Rx 400H.

ANNOUNCER: Today, at purchase, fuel economy is the last consideration of a Sport Utility Vehicle buyer. But it's the first dis-satisfier once they get the car home. In the case of the 400H we will sell performance and surprise with improved fuel economy.

LOBET: It's dawning on automakers that because electric motors reach full torque almost as soon as you switch them on, they can actually increase performance, or what some drivers think of as "that V-8 feel."

[QUIET ACCELERATION TO HIGH SPEED]

LOBET: Buying a hybrid still requires some commitment because they cost several thousand dollars more than their side-by-side non-hybrid brothers. But enough about regular old hybrids. Remember the all-battery car, the plug-in electric? There were a few made in the late 1990s, but Americans it seems weren't much interested in a car that ran out of charge after 100 miles and needed to be plugged in. Living On Earth even aired a story about a funeral for the electric car idea last year in Los Angeles. But reports of their demise may have been premature.

[SOUND OF NEIGHBORHOOD BASEBALL GAME]

LOBET: In his driveway in Redwood City, California, Felix Kramer admires his Prius.

KRAMER: I love it.

LOBET: But like so many of us, Kramer wants to change the thing he loves. He wants Toyota to build its next hybrids with bigger batteries and a plug so people who wish to can do all their daily driving without the gasoline engine ever kicking in. Not content with 50 miles per gallon, he wants to get 90. He wants something that doesn't exist right now--a plug-in hybrid.



KRAMER:
Our point



of view is you don't have to plug it in, you have the option of plugging it in.

Felix Kramer's CalCars campaign hopes to persuade Toyota to make Priuses that travel farther on battery.
(Photo: Felix Kramer)

Conceivably you could go for months without going to a fueling station. And a lot of surveys have shown that going to gas stations is a very unpopular activity.

LOBET: Kramer has helped organize a whole community of fellow "pluggies," online. They've pored over every nook and cranny in their Priuses, and they've discovered certain hints that lead them to believe Toyota might just be considering the plug-in option, too.

[CAR DOORS SLAM]

KRAMER: To the left of the steering wheel is a black button that is blank. That is the magic EV-only button. In Europe and Japan, if you push that button the car is a pure electric vehicle. The existence of this EV button has inspired a tremendous amount of discussion online about what would it take to make the Prius a plug in electric vehicle.

LOBET: And there's another curiosity at the back of the car.

[CAR DOORS CLOSE]

LOBET: So we're going back around to the trunk.

[SOUND OF HATCHBACK OPENING]

KRAMER: The Prius is a hatchback ...and there is a hidden compartment in the Prius.

LOBET: a hidden compartment.

KRAMER: First I take out the carpet. And there's a pretty substantial area down here ...

[SOUNDS OF PUTTING THINGS BACK]

LOBET: It's a nice empty space where a beefed up battery could go in a future version. Or maybe it's just a convenient place to hide a camera from view.

LOBET: I have to mention here one other thing Felix Kramer and other drivers of electric vehicles and hybrid vehicles love about their cars, and that's regenerative breaking. With regenerative breaking, you put your foot on the break and the energy of the wheels spinning against the breakpads recharges the battery. When you break, you watch the charge on the battery rise.

[SOUNDS OF NEIGHBORHOOD BASEBALL GAME]

We stand in his driveway and I ask Felix why he's dedicating so much time to making a very clean advanced car into a more electric car.

KRAMER: We think something really new could happen from this CALCARS campaign. You could get a large group of organized

consumers defining what kind of product they need and demonstrating to the manufacturer that there is demand for that vehicle. And really changing the world by saying this is what we want. We're willing to pay for them, please make them for us.

[SOUND OF KIDS PLAYING, MIXED WITH CHIMES AT KRAMER'S HOUSE]

LOBET: I wondered what engineers might say to the idea of a next generation of plug-in cars at a time when it seemed like plug-ins have been superceded. Robert Graham and Mark Duvall are both engineers and managers at the Electric Power Research Institute in Palo Alto. The Institute develops everything from nuclear plants to batteries for the power industry. Of course, the power industry would like everything to plug in, but even power company critics agree, gallon for gallon of fuel, electricity is a much cleaner way to run vehicles. And Duvall believes hybrids that can plug in are definitely on the way.

DUVALL: A conventional midsize car gets 27 miles per gallon. That's what the federal government mandates, and so that's what it is. A car like a Toyota Prius gets about twice the fuel economy of a conventional mid-size car. A plug-in hybrid mid-size car would cut that in half again, so you 'd be down to a quarter of the fuel consumption of a conventional car. So it's really a dramatic difference, and it's the type of difference that you need if we're actually going to reverse our consumption of petroleum

LOBET: How much does it cost to juice the battery up at night, and how much compared to just letting the hybrid gas motor charge the battery?

DUVALL: If you had a plug in hybrid and it drove 20 miles a day on electricity and it was a mid-sized car, you would need less than 50 cents to charge it, per charge. So every day you drive to work and back, and that 15 dollars a month at today's prices would replace about 60 dollars in gasoline.

LOBET: And what do they make of the EV button and that extra hidden space in the Prius--is it a clue that Toyota might consider producing vehicles that run longer distances on battery only? Bob Graham.

GRAHAM: I'm convinced that Toyota already has a plug-in hybrid design ready to bring to the marketplace because it's a logical next step. They see, as I do, an urban America that wants a clean vehicle in downtown America, or downtown Europe. It makes good logical sense to have a hybrid and a plug-in hybrid together as a family of vehicles.

LOBET: Part of what convinced Graham about hybrid plug-ins was a project, now underway and still under wraps at DaimlerChrysler in Germany. They're making a plug-in hybrid version of the Dodge Sprinter delivery truck. That's the first time a major car manufacturer has committed to doing a plug electric hybrid vehicle. While DaimlerChrysler is still only building the first 30, Graham says for him, it's a reality.

GRAHAM: I don't see any reason why this vehicle will not get commercialized. There's no technical hurdles, there's no market hurdles, there's some volume hurdles, but we think the market demand will overcome that. I can't think of a single reason why we won't be successful today. If you asked me that same question two years ago, it would have been a different story, but there are no

reasons why we will not be successful today.

LOBET: So there you have that option. Some people are excited about marrying the hybrid car to the optional plug-in. But improvements in battery technology could mean that even the pure battery electric vehicle could rise from the crypt. Recently on David Letterman, actor Tom Hanks, who has an electric car and a Prius, revealed that he has invested money in AC



Toyota has paired with AC Propulsion of California to make an all-electric version of this Scion XB. (Credit: Toyota Motor Corporation)

Propulsion--a respected Los Angeles electric car builder. It turns out that Toyota, in partnership with AC Propulsion, plans to build an all electric, plug in version of its boxy Scion xB.

HANKS: Now here's the great thing, the greatest thing about driving an electric car Dave, and I know I say Dave a lot. It's because you still scare me Dave, you really do. Is that you never have to stop at the gas station again. You want to talk about freedom, America? You never have to stop at a gas station again. Except when you really want a Big Gulp and some Slim Jims.

[APPLAUSE]

LOBET: There's also another clean car possibility already on the market, and that's natural gas. Honda makes a natural gas version of the popular Civic. We caught up with Honda's Annabel Cook as she was making a presentation to people who buy lots of cars, fleet managers.

COOK: So there's the Civic. It looks like any other Civic. It's actually built on the same assembly line as the gasoline vehicles. And it's built in Ohio. Now why did we go natural gas? Natural gas is less expensive than gasoline. Right now at some stations it's about \$1.34 a gas gallon-equivalent. It's also of course much cleaner. And as a technology it's becoming more and more available.

LOBET: Up until now natural gas vehicles have mostly been sold to taxi companies and cities and counties, people who can gas up at their own pump. But the number of natural gas pumps is growing. There are 1300 in the United States, 220 in California. And if Honda has it's way, you'll soon be able to fill up your natural gas car at home in your garage with a hose connected to a wall box that in turn is connected to your gas meter, the same one you use for your stove.

COOK: And that's what the unit looks like, it's about the size of a pay telephone, and this appliance will be able to be placed in your garage, it will tap into your gas line that's already going into most your homes, and it will allow you to fill your vehicle overnight.

LOBET: Honda now hopes to start selling the boxes in the fall at about one to two thousand dollars each.

So we've mentioned natural gas, pure battery cars, plug-in hybrids, as well as the standard hybrids, with no plug. But there's one other clean car option. And it might be the biggest surprise. In struggling to meet California's strict air rules, major car makers have figured out ways to tweak the plain old gasoline car and make it super clean. At least nine automakers are making such next-gen versions of their cars including the Ford Focus, Toyota Camry and BMW 325i. Professor Jim Lents of the University of California at Riverside helped

run the first tests.

LENTS: They are so clean that on a few occasions when we've been out on the freeway making measurements, they actually produce cleaner air out the tailpipe than is coming in the intake of the engine, so one could argue they are actually cleaning up the air. This is a rare occasion but it's interesting even if it happens at any point on time.

LOBET: It's hard for many people to believe that engineers have been quietly reducing tailpipe smog by another 90%, the more visible trend has been SUVs. But Lents says the breakthroughs happened with almost all the manufacturers.

LENTS: The computer- the microprocessor came, it allowed gasoline to be more accurately distributed to the cylinders and air to be produced exactly in the right amount for the combustion process and to cause the spark plugs to fire at the right amount.

LOBET: California air officials predict six times as many of these 'PZEVs' or partial zero emissions vehicles as hybrids will be made next year. They don't get the good mileage you can get with the hybrids, so you'll probably still be going to the gas station just as often. But they're probably the cheapest route to cleaner air, fifteen thousand dollars for a Ford Focus at the lower end. The bottom line: you don't have to wait for the fuel cells to have a pretty broad choice of clean cars. For Living On Earth, I'm Ingrid Lobet in Los Angeles.

GELLERMAN: You can check out a complete list of the new generation of clean cars available today at our website: Living on Earth dot org.



Links for this story:

- [Drive Clean](#)
- [The California Cars Initiative](#)
- [AC Propulsion, Inc.](#)

SHOW CREDITS AND FUNDERS

GELLERMAN: And for this week - that's Living on Earth. Next week - There's a lot of talk lately about hydrogen as the next, big thing in energy...some skeptics say it's decades away and will never be too cheap to meter. But on a small island in the middle of the North Atlantic the idea is more than a lot of hype. In Iceland, hydrogen is already happening.

MALE: Can the world afford to have the hydrogen project far into the future? Isn't it of great need, even pressing need, for the total global environment to have the hydrogen project as a viable option, here and now, as quickly as possible?

GELLERMAN: It's the "Promise of Hydrogen" - on the next Living on Earth. And between now and then you can hear us anytime and get the stories behind the stories by going to Living on Earth dot org. That's Living on Earth dot O-R-G.

[EARTH EAR: "Cricket Voice"]

And by jimminy, We leave you in the Mexican desert with a lone cricket. Hildegard Westercamp recorded this insect's song...took it back to her studio and used it to frame her composition called: