

Where do
some of
nature's
creepiest
critters live?
On—and
in—your
body!



Body Bugs

BY CHANA STIEFEL

On her twelfth birthday, Amy Wasterlain got the biggest surprise of her life.

A bunch of uninvited crashers were partying away on her scalp. "My head was pretty itchy," says the teen from Brooklyn, New York. "Then one of my friends saw a louse crawling on my head.

We freaked!"

Amy's mom called in a nurse on the spot. The nurse spent more than three hours combing through Amy's long brown hair, picking out sesame-seed-size insects and their tiny eggs, called *nits*. Many of Amy's friends were also infested. "It was a lice party!" Amy exclaims.

While no official statistics are available, Amy and her friends aren't the only ones in a louse-y situation. One survey reports six million cases of lice in 1997, up almost 10 percent from 1995. Schools across the country are reporting lice infestations in rapidly increasing numbers. And health experts worry that some lice may have become resistant to the very

chemical shampoos designed to wipe them out.

Fortunately, the head louse—called *pediculus capitis* (peh-DIK-yoo-lus ka-PI-tis)—isn't harmful. It's simply one of dozens of parasites that call your body home. *Parasites* are living organisms that derive nourishment from often unsuspecting hosts—in this case, humans. Why are they picking on *you*? Over millions of years, parasites have developed *adaptations*, or survival strategies, to make the human body a perfect place to live.

"Your hair provides shelter, the perfect temperature and humidity, and an endless supply of food," says Richard Pollack, a public health *entomologist* (bug scientist) at the Harvard School of Public Health in Cambridge, Massachusetts. Head lice feature tiny mouthparts that dig into the scalp. "They hang out in your hair and sip a little blood every few hours," he says. *Ewww!!!*

What other tiny gross-outs thrive on or in your body? Flip the page. ▶

Where the Bugs Are

Meet some critters that call your body home.

FOLLICLE MITE

SCIENTIFIC NAME: *Demodex folliculorum* (DE-muh-deks fo-LIK-yoo-LO-rum)

CLASSIFICATION: Arachnid

HABITAT: Follicles (cavities surrounding each eyelash hair); pores on forehead and nose

HOW IT GETS THERE: Most likely, human mom passes on mites to her children through close contact, like snuggling; sometimes transmitted through shared towels

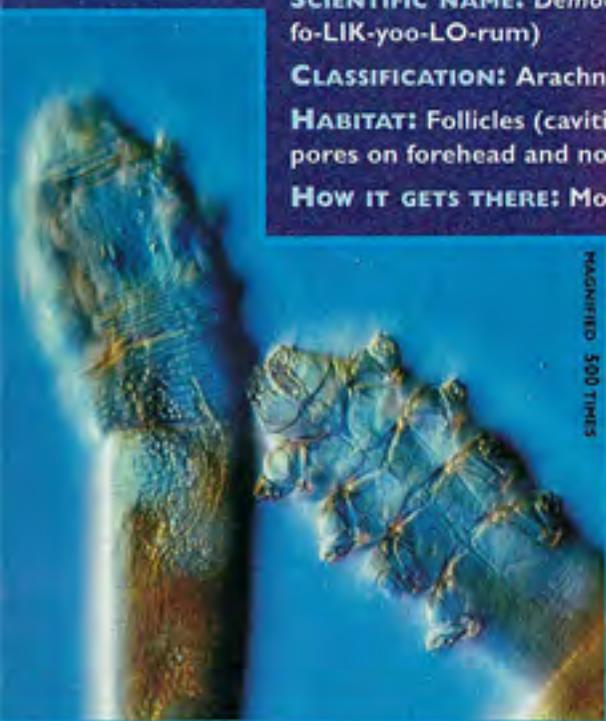
ACTUAL SIZE: 0.25 mm (0.01 in.) long, about one-quarter the size of the decimal point in 0.25

BODY COUNT*: Too many to count

CREEPY FEATURES: Mouthparts pierce skin and feed on skin cells or oil from sweat glands.

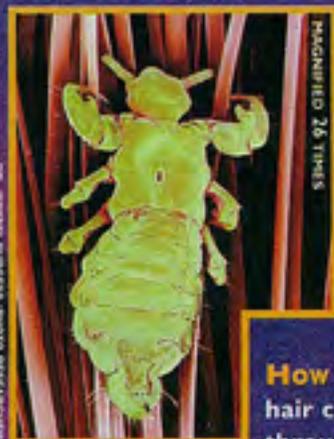
SYMPTOMS: Usually none; sometimes causes red, scaly, wrinkled skin

TREATMENT: Don't bother. Out of sight, out of mind.



MAGNIFIED 500 TIMES

DARLENE MURAWSKI



MAGNIFIED 26 TIMES

DR. ROBERT BARBERS, PHOTO RESEARCHERS

HEAD LOUSE

SCIENTIFIC NAME:

Pediculus capitis
(peh-DIK-yoo-lus ka-PI-tis)

CLASSIFICATION: Insect

HABITAT: Human hair and scalp

HOW IT GETS THERE: Hair-to-hair contact; sometimes through shared brushes, hair accessories, and hats

ACTUAL SIZE: 3 mm (0.12 in.) long as adults

BODY COUNT: From one to more than 100

CREEPY FEATURES: Six legs with claws to cling to human hair; mouthparts specialized for sucking human blood

SYMPTOMS: Itching and irritation

TREATMENT: Comb hair daily for more than two weeks with special louse or nit comb. Use over-the-counter *pediculicides* (lice-killing shampoos) for two treatments about 8 to 10 days apart; some lice may be resistant to shampoo chemicals.

ITCH MITE

SCIENTIFIC NAME: *Sarcoptes scabiei* (sar-KOP-tis SCAY-be-eye)

CLASSIFICATION: Arachnid

HABITAT: Burrows in skin, mostly between fingers, wrists, ankles, elbows, buttocks, abdomen, and groin

HOW IT GETS THERE: Sexual contact or other close human contact

ACTUAL SIZE: Female grows to about 350 to 450 microns; males can reach 250 microns (1 micron = 1/1,000,000 meter)

BODY COUNT: Few to hundreds

CREEPY FEATURES: Skin-melting enzymes (proteins) help the mite burrow through top skin layers and irritate the area with feces and saliva. Female itch mite can move up to 2.5 cm (1 in.) in one minute. That's like a 6-ft-tall human running one mile in 1.67 minutes.

SYMPTOMS: Causes an itchy, red, raised rash on skin (right). Intense itching about one month after infestation; scratching can worsen infection.

TREATMENT: See dermatologist. Treat with lotions containing chemicals *lindane* (by prescription) or *permethrin* (over-the-counter).

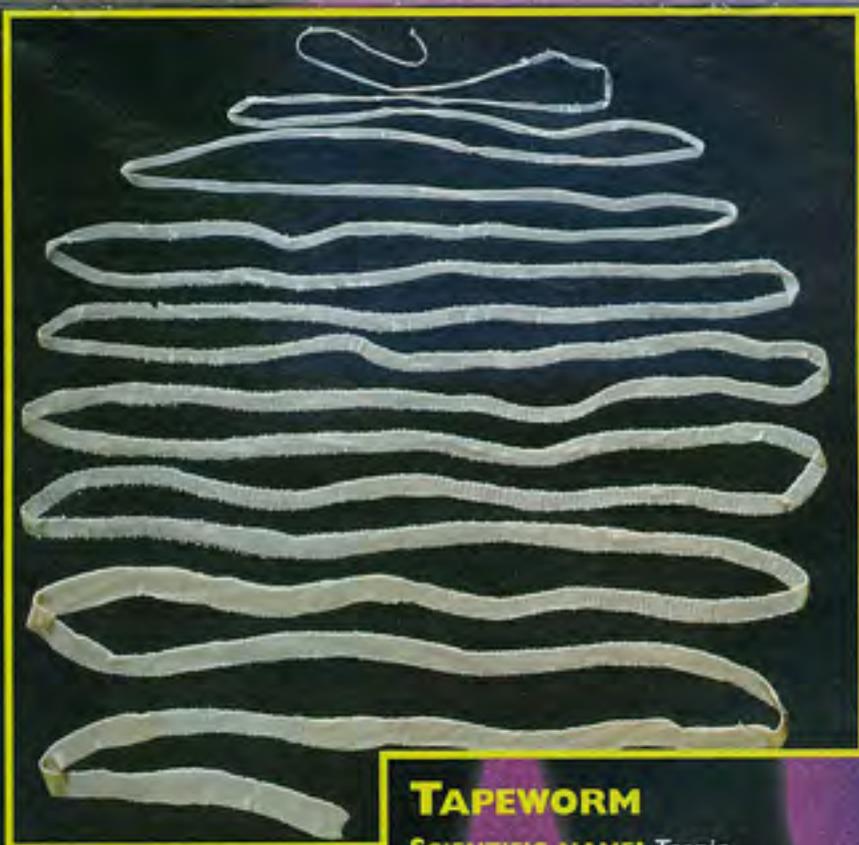


DR. R. MAHAJAN/PHOTO RESEARCHERS



MAGNIFIED 50 TIMES

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MANVIR KALIC/PHOTO ASSOCIATED

TAPEWORM

SCIENTIFIC NAME: *Taenia*

echinococcus (TEE-nee-uh eh-kih-noh-KOH-kus)

CLASSIFICATION: Flatworm

HABITAT: Intestinal tract and liver

HOW IT GETS THERE: Ingestion of egg-containing segment of tapeworm, usually from undercooked meat. When egg hatches, larva burrows into intestinal lining and forms a cyst (protective sac). Digestive juices stimulate growth.

ACTUAL SIZE: 13 mm (0.5 in.) to 9 m (30 ft) long

BODY COUNT: One or more

CREEPY FEATURES: No mouth or digestive tract, tapeworms absorb digested food through their body surface.

SYMPTOMS: Often, no symptoms; sometimes abdominal pain and swelling; nausea

TREATMENT: Treat with *niclosamide* (ni-KLOH-sa-mide), a worm-killing chemical

MAGNIFIED 120 TIMES



CRAB LOUSE

SCIENTIFIC NAME:

Pthirus pubis
(THY-ruhs PYOO-bis)

CLASSIFICATION:

Insect
HABITAT: Pubic region;

occasionally on facial or armpit hair

HOW IT GETS THERE: Sexual contact or other close human contact; can be transmitted from toilet seat, towels, or other contaminated objects

ACTUAL SIZE: 3 mm (about 0.13 in.)

BODY COUNT: Less than a dozen or more

CREEPY FEATURES: Crablike claws help it move through hair

SYMPTOMS: Itching; sometimes causes bluish spots on skin

TREATMENT: Pick off lice and eggs with hands or lice comb. Then treat with *pediculicides* (lice-killing shampoos).

MICROSPORUM GYPSEUM

(my-kroh-SPO-rum JIP-sih-um)

CLASSIFICATION:

Fungus
HABITAT: Skin, scalp, nails, or forearms

HOW IT GETS THERE: Transfers from soil to human; can be transmitted from infected pets to humans; occasionally passed through shared combs or brushes with infected person

ACTUAL SIZE: *Hyphae* (long filaments) are about 3 to 3.5 microns

BODY COUNT:

Thousands
CREEPY FEATURES: Fungus can live on skin for years without symptoms, but stress could trigger an inflammation on skin.

SYMPTOMS: Burning and itching; *ringworm*, a red eruption on skin that spreads out from the center as it heals (right)

TREATMENT: Keep infected area clean and dry; use antifungal treatment, such as *clotrimazole* (kloh-TRY-muh-zohl)



MAGNIFIED 2,025 TIMES



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MAGNIFIED 6 TIMES

HUMAN BOTFLY

SCIENTIFIC NAME: *Dermatobia hominis*
(der-ma-TOH-byuh
HO-mih-nis)

CLASSIFICATION: Insect

HABITAT: Larva (young botfly) digs into skin

HOW IT GETS THERE: Female botfly lays eggs on a mosquito's abdomen. When the mosquito sucks human blood, human body heat causes botfly eggs to hatch on skin. Larvae crawl into the fresh bite wound and mature.

ACTUAL SIZE: 3 cm (1 in.) for a mature larva

BODY COUNT: One or more

CREEPY FEATURES: Rows of spines on larva help it lodge itself mouth-first into skin. As it matures, the larva wriggles under the skin. Adult botfly emerges and flies off.

SYMPTOMS: Wriggling larvae cause pain under the skin. A boil-like lesion (above) forms at the site of infestation.

TREATMENT: Covering area with mineral oil, turpentine, or alcohol may force larva to come out for air.



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ATHLETE'S FOOT FUNGUS

SCIENTIFIC NAME: *Trichophyton mentagrophytes*
(try-koh-FY-ton men-ta-GROH-fy-tis)

CLASSIFICATION: Fungus

HABITAT: Feet; in groin area, causes jock itch

HOW IT GETS THERE: Walking barefoot on moist floors of bathroom and swimming areas; infected skin flakes in shared socks and shoes

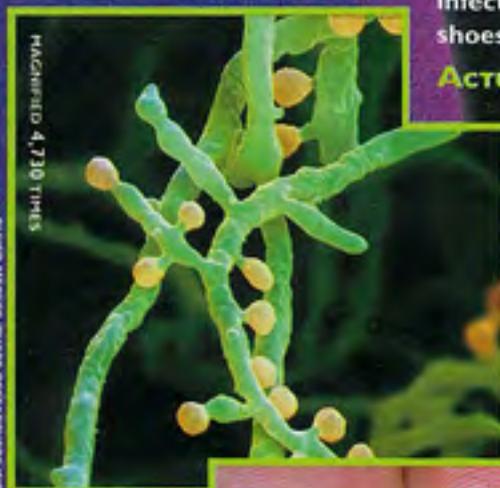
ACTUAL SIZE: Hyphae (long filaments) are about 3 to 3.5 microns

BODY COUNT: Thousands

CREEPY FEATURES: Can grow to about an inch or two in 10 to 14 days

SYMPTOMS: Reddish eruption followed by cracked skin (below)

TREATMENT: Use antifungal treatment such as clotrimazole



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MAGNIFIED 4,730 TIMES



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